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MASSACHUSETTS
STATE RAIL PLAN

Prepared for the Information
of the Citizens and Rail Users
of the Commonwealth and for the
Federal Railroad Administration
in Conformance with 49 CFR 225.9

by

The Executive Office of Transportation and Construction
Commonwealth of Massachusetts

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Approved by Alfred C. Holland, State Purchasing Agent



FREDERICK P. SALVUCCI
SECRETARY

The Commonwealth of Massachusetts

Executive Office of Transportation & Construction

One Ashburton Place

Boston, Massachusetts 02108

July 30, 1976

Asaph H. Hall, Administrator
Federal Railroad Administration
400 Seventh Street, SW
Washington, D.C. 20590

Dear Mr. Hall:

Submitted herewith are ten copies of the 1976 edition of the Massachusetts State Rail Plan prepared in conformance with 49 CFR 255.9. This document has been prepared by this Office which, under Chapter 161C of the Massachusetts General Laws enacted last year, is the agency designated for rail transportation planning and administration of the state rail program.

This Plan includes numerous revisions from the 1975 edition. These revisions are the result of many factors and events including changes in applicable federal law; the elective decisions of some rail users; continued input from rail users, interested parties and the general public; and experience with the operation of rail freight branchline services.

Should you or your staff have questions with respect to this Plan, please be in touch with Assistant Secretary Peter J. Metz, who is in charge of this program.

Massachusetts strongly desires to improve its rail transportation system. We look forward to working cooperatively with the Federal Railroad Administration to this end.

Sincerely yours,

Frederick P. Salvucci
Frederick P. Salvucci *fp*

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INTRODUCTION

The Massachusetts State Rail Plan, 1975 Edition, was prepared as part of the Commonwealth's efforts to respond to the railroad restructuring process set in motion by the Regional Railroad Reorganization Act of 1973 (3R Act). At that time, the pressing need facing the Commonwealth was the immediate impact of the abandonment of branchlines excluded from the Final System Plan of the United States Railway Association.

The Massachusetts State Rail Plan, 1976 Edition, deals with the 3R Act as modified by the Railroad Revitalization and Regulatory Reform Act of 1976 (4R Act), with Chapter 161 C of the General Laws of Massachusetts, enacted December 31, 1975, and, with special emphasis, explores the benefit of four months of experience in federally subsidized operation of the six branchlines the Commonwealth identified in the 1975 Edition as requiring continued freight rail services under Title VIII of the 4R Act, Local Rail Service Continuation.

Thus, where the 1975 Edition concentrated on the development of a proposed branchline assistance program for the continuation of essential freight rail services and the preservation of transportation corridors, this Edition explores some of the results of the first steps in the Commonwealth's efforts to carry out its proposed plans.

we will also outline the marketing program this Office has undertaken to increase traffic on subsidized lines, the efforts local users have expended to improve the viability of their lines and a special brush clearing project that has been undertaken on three lines in order to minimize hazards for the train crews and to improve the quality of rail service.

In this document we update the results of state legislation, public hearings, financial estimates, staffing, program implementation and funding.

The rail planning process will continue to be a flexible policy subject to modification wherever and whenever the public interest calls for change and the economics of change can be justified.

II. THE RAIL SYSTEM OF MASSACHUSETTS

A. Railroads

There are at present 11 railroad companies in Massachusetts. The Penn Central has been reorganized into the Consolidated Rail Corporation (ConRail) under the Regional Rail Reorganization Act; the Penn Central estate retains certain properties in the Commonwealth. The Boston & Maine is currently reorganizing under Section 77 of the Bankruptcy Act. The other Class I railroad, the Central Vermont, is solvent. Of the remaining seven, three are operating companies-- the Providence and Worcester, the Grafton and Upton and the Fore River Railroad. The other four are holding companies that lease their rights-of-way to operating companies. In addition, several groups are organizing in an attempt to become short line operators. These groups are the Bay Colony Railroad Corporation, the Berkshire Railroad Company, Cape Cod Railways, Inc., Massachusetts Central Railroad Corporation and the Millbury Railroad Corporation.

Consolidated Rail Corporation (CRC)

In Massachusetts ConRail operates 476.18 miles of mainline track; 173.32 miles of branch lines; 225.7 miles of second track; 14.95 miles of third track; 6.35 miles of fourth track and 462.42 miles of side track. With leased track included, the total track operated in Massachusetts by the CRC amounts to 1,550.43 miles.¹

In addition, the CRC operated over more than 500 highway crossings, 11 of which were unprotected, 219 were protected by audible and visual signals, 272 were protected by electric signals, three by flagmen and gates and 36 by gates alone.²

Engineering evaluations of CRC rights-of-way have produced estimates of nearly \$148,000 per mile to rehabilitate the system and remove slow orders on 717 miles of mainline and branch line track. This amounts to more than \$100 million.

By 1980, 31.7 million tons are projected by Harbridge House³ to be handled on the Penn Central system (now CRC) in New England. This represents a 6.3 percent increase over 1973.

¹ Based on the 1974 Penn Central Annual Report to the ICC.

² Ibid.

³ Traffic Volume Projections for 1980: New England Railroads Prepared for the New England Regional Commission by Harbridge House (June 1975).

Projected Totals: PC New England

<u>Traffic</u>	<u>1973 Tonnage</u>	<u>1980 Tonnage</u>	<u>1973-1980 Growth Rate (%)</u>
Local	1,990,769	2,053,368	+3.1
Forwarded	2,576,774	2,712,580	+5.2
Received	12,716,340	13,526,329	+6.3
Bridge	<u>12,534,467</u>	<u>13,421,834</u>	<u>+7.0</u>
Totals	29,818,350	31,714,111	+6.3

In all traffic types, excepting the local traffic, commodities carried by PC are highly diversified. The following gives significant commodity groups in each type of traffic according to the 1973 tonnage share, along with their projected growth rates.

<u>Share of Traffic Type, 1973 (%)</u>	<u>STCC</u>	<u>Commodity Category (primary component)</u>	<u>1973-1980 Growth Rate (%)</u>
LOCAL			
(1) 49	1421	Crushed and broken stone	+ 2.0
(2) 23	2911	Petroleum refining products	- 1.1
(3) 7	4611	Mixed shipments	+ 8.0
FORWARDED			
(1) 14	4511	Shippers association and similar traffic	+ 5.0
(2) 11	4411	Freight forwarder traffic	- 6.0
(3) 10	4611	Mixed shipments	+ 3.0
(4) 9	4021	Metal scrap, waste and tailings	+12.5
(5) 6	1421	Crushed and broken stone	0.0

(continued on next page)

(Penn Central--cont'd.)

Share of Traffic Type, 1973 (%)		STCC	Commodity Category (primary component)	1973-1980 Growth Rate (%)	
RECEIVED					
(1)	5	2621	Paper, except building paper (newsprint)	+	8.7
(2)	5	1471	Chemical and fertilizer minerals (rock salt)		0.0
(3)	4	2631	Paperboard, pulpboard, fiberboard	+	4.0
(4)	4	3312	Primary iron and steel products	+	6.0
(5)	4	2421	Lumber and dimension stock	+	5.0
(6)	4	2041	Flour and other grain mill products (flour and middlings)	+	8.0
(7)	3	3711	Motor vehicles and equipment (passenger cars, trucks)	-	4.8
(8)	3	1491	Misc. non-metallic minerals, NEC (peat, earth)		0.0
(9)	2	2432	Veneer and plywood	+	3.5
(10)	2	3714	Motor vehicle parts and accessories	+	3.0
BRIDGE					
(1)	16	2621	Paper, except building paper	+	11.2
(2)	9	1121	Bituminous coal		0.0
(3)	5	3714	Motor vehicle parts and accessories	+	17.0
(4)	4	2611	Pulp and pulp mill products	+	13.2
(5)	4	3295	Non-metallic earths and minerals, NEC	+	4.2
(6)	4	1011	Iron ores (iron concentrates)	+	12.0
(7)	3	0113	Grains (corn, oats)		0.0
(8)	2	2421	Lumber and dimension stock	+	1.1
(9)	2	2631	Paperboard, pulpboard, fiberboard	+	10.2

Boston & Maine (B&M)

The bankrupt Boston & Maine Corporation, which is undergoing reorganization outside the Railroad Revitalization and Regulatory Reform Act of 1976 (the 4R Act), is the second largest operating railroad in the Commonwealth after ConRail, with a total of 2,296 miles of track in the states of Maine, Massachusetts, New Hampshire, Vermont and New York. In Massachusetts, the railroad operates over 1,260 mainline, branch, yard, siding, switch and passing track miles radiating north and northwest from Boston.⁴ Two major southerly routes from Vermont and New Hampshire intersect with the east-west mainline and extend into the major central and western cities of Worcester and Springfield. Local branch line operations further extend service to nearly 100 smaller towns and cities scattered throughout the northerly half of the state.

By the end of the 1974 calendar year, the Boston & Maine Corporation operated 171 diesel locomotives, 3,393 assorted cars and 411 cabooses. The average rail weight throughout the B&M system was 115 pounds per yard. Net ton miles that year was 2,809,132,000 with gross revenues of \$91,318,000. Total locomotive unit miles came to nearly 6,774,000 and locomotive train miles amounted to 1,978,800.⁵

In 1974-1975 the B&M had on order and stockpiled a sum of more than 200,000 new ties and 4,000 tons of new rail. Lack of funds to employ the labor necessary for installation had prevented the railroad from entering its third consecutive year of an accelerated fixed plans (right-of-way) improvement program.⁶

The B&M has interchange service with the Canadian Pacific, Canadian National, Central Vermont, Maine Central and CRC. It is the only link for northern New England railroads to other major lines within the United States. The railroad maintains yards in Lowell, Worcester, Ayer, Boston, Fitchburg, Lawrence and East Deerfield, Massachusetts.

In general, many of its heaviest used lines are suitable for increased speed and tonnage provided that implementation of the right-of-way improvement program can continue. These lines include Boston to East Deerfield to Rotterdam Junction; Boston to Lowell; Lowell to Willows (the Stony Brook branch); Wilmington to Portland, Maine; and North Chelmsford, Massachusetts, to White River Junction, Vermont. The latter line currently operates only one train per week.

⁴ MCA Engineering Corporation, March 1975, Conditions of Railroad Track Facilities in New England.

⁵ B&M 1975 Annual Report to the ICC.

⁶ Testimony of Alan Dustin, President, B&M, before the joint hearing of the Senate Committee on Commerce and the Senate Committee on Labor and Public Welfare.

The Springfield to White River Junction; the White River Junction to Berlin, New Hampshire; and the Worcester to Ayer lines are suitable for increased tonnage but not for increased speeds primarily because of grades or restricting curves.

Estimated rehabilitation costs for the Massachusetts segments of the B&M rail network and major yard facilities are: to correct conditions causing rapid degradation and to bring track to good shape and safe condition, \$12,313,571; and to remove slow orders and operate trains at timetable speeds, an additional \$946,153; major yards would require a minimum of \$250,000 to remedy deteriorating and inefficient operations.

In June of this year, the B&M received \$1.2 million for bridge clearance projects, signalling, tie renewal, track surfacing and rail replacement in Massachusetts from the New England Regional Commission. More than 44,000 ties are expected to be replaced, more than 50,000 tons of ballast used and nearly 30,000 tons of new and relay rail used during the projected six-month project.

In 1973 the B&M carried 14.9 million tons. Harbridge House⁸ has projected that in 1980 slightly less than 16 million tons of traffic will be handled by the B&M. This represents a 7.1 percent increase over the 1973 volume of 14.9 million tons.⁹ The largest increases are expected to occur in forwarded and local traffic, although their total volumes are less than the other traffic types.

Projected Totals: B&M

<u>Traffic</u>	<u>1973 Tonnage</u>	<u>1980 Tonnage</u>	<u>1973-1980 Growth Rate (%)</u>
Local	799,081	941,692	+17.8
Forwarded	1,704,589	1,859,791	+ 9.1
Received	7,885,372	8,332,229	+ 5.6
Bridge	<u>4,542,298</u>	<u>4,855,921</u>	<u>+ 6.9</u>
Totals	14,931,340	15,989,633	+ 7.1

⁷ Statistics and rehabilitation costs from MCA Engineering Corporation, March 1975, Condition of Railroad Track Facilities in New England.

⁸ Harbridge House, Inc., June 1975, Traffic Volume Projections for 1980: New England Railroads.

⁹ Temple, Barker, and Sloane, Inc., in its Forecast of Traffic and Revenues 1974-1980, prepared for the United States Railway Association, have projected a 7.7 percent growth rate for the B&M.

The major commodities handled by the B&M are projected to show the following growth rates:

<u>Share of</u> <u>Traffic Type, 1973 (%)</u>		<u>STCC</u>	<u>Commodity Category</u> <u>(primary component)</u>	<u>1973-1980</u> <u>Growth Rate (%)</u>
LOCAL				
(1)	40	1441	Sand and gravel (gravel)	+ 6.0
(2)	20	291	Products of petroleum refining (residual fuel oil)	+77.0
(3)	11	4021	Metal scrap, waste, tailings	+ 6.0
FORWARDED				
(1)	13	262	Paper, except building paper	+12.0
(2)	8	263	Paperboard, pulpboard, fiberboard	+15.0
(3)	7	264	Converted paper and paperboard products (sanitary products)	-15.0
(4)	7	4021	Metal scrap, waste, tailings	+ 8.0
(5)	5	2062	Sugar, refined, cane and beet	+10.0

<u>Share of</u> <u>Traffic Type, 1973 (%)</u>		<u>STCC</u>	<u>Commodity Category</u> <u>(primary component)</u>	<u>1973-1980</u> <u>Growth Rate (%)</u>
RECEIVED				
(1)	13	1121	Bituminous coal	+ 0.0
(2)	6	261	Pulp or pulp mill by-products (pulp)	+12.0
(3)	5	262	Paper, except building paper	+10.0
(4)	5	263	Paperboard, pulpboard and fiberboard	+12.0
(5)	5	281	Industrial and organic and inorganic chemicals	+15.0
(6)	5	324	Hydraulic cement (Portland)	+ 5.0
(7)	4	147	Chemical and fertilizer minerals (rock salt)	+ 4.0
(8)	4	2041	Flour and other grain mill products (wheat flour)	+ 8.0
(9)	3	291	Products of petroleum refining (residual fuel oil)	-31.6
(10)	3	331	Steel works and rolling mill products (iron and steel)	+ 3.0
BRIDGE				
(1)	29	262	Paper, except building paper	+ 7.6
(2)	9	329	Abrasive or asbestos products	+ 6.0
(3)	8	0113	Grain (corn)	+ 0.0
(4)	5	261	Pulp or pulp mill products (pulp)	+13.0
(5)	5	147	Chemical or fertilizer minerals (rock salt)	+ 5.0
(6)	4	2042	Prepared feed, animal fish, and poultry	+ 9.0
(7)	4	264	Converted paper and paperboard products	+ 7.0

On December 12, 1975, the B&M submitted a reorganization plan to its bankruptcy court and to the ICC. The first step of this reorganization plan calls for the sale of approximately 270 miles of Boston-area rights-of-way to the Massachusetts Bay Transportation Authority. The necessary purchase and sale agreement was approved by the ICC on June 25, 1976, and is in the final stages of approval by federal and state officials. The B&M lines to be acquired by the MBTA are marked on the map included in Chapter IV. B&M will retain an easement for all necessary freight operations.

The B&M has petitioned its bankruptcy court for permission to seek abandonment of 47 miles of freight branch lines in Massachusetts. The lines proposed for abandonment are:

Northampton to Wheelwright	38.7 miles
Townsend (Valuation Station 567 + 45) to New Hampshire State Line	3.3 miles
South Acton to Maynard	2.7 miles
Hudson to Marlboro	2.19 miles

These lines are shown on the map in Chapter IV. The Executive Office of Transportation and Construction has begun evaluations to determine the importance of each of these branch lines. The results of these evaluations will determine EOTC's position in the bankruptcy court and before the ICC on these abandonments. These evaluations will also consider the possible use of federal and state funds for subsidizing continued operation.

Central Vermont (CV)

The Central Vermont Railroad, with 446 miles of track and trackage rights, serves the states of Connecticut, Vermont, New Hampshire and New York in addition to Massachusetts. Its operations extend into Canada as a natural connection with its parent company, the Canadian National. The CV interchanges freight primarily with the Canadian Pacific, CRC and the B&M. In terms of the latter, interchanges take place in Massachusetts in the towns of Belchertown and Millers Falls. CRC interchange takes place in Palmer.

The railroad enters the Commonwealth on its northerly border at the town of East Northfield in a southerly route taking it through Millers Falls, Montague, North Amherst, Amherst, Belchertown, Three Rivers (Palmer), Monson, South Monson and to the Connecticut border.

CV operates 55 miles of track in Massachusetts. Typical of rail lines in the Commonwealth, the CV rights-of-ways indicate deterioration due to deferred maintenance. To rehabilitate rights-of-ways and to remove slow orders, a total of nearly \$1,700,000 would have to be expended.¹⁰

The railroad maintains a small yard in Palmer which would require a minimum expenditure of more than \$600,000 for upgrading.¹⁰

The Central Vermont Railroad Annual Report¹¹ shows that the carrier had replaced 28,730 ties and 126.13 miles of rail in 1974. The company operates 16 diesel locomotives, 1,111 various cars and 14 cabooses. Locomotive unit miles amounted to 411,863; locomotive unit train miles equalled 1,358,841 which translated into 753,748,000 gross ton/miles and 355,878,000 net ton miles.

The CV operates over 47 grade crossings, 26 of which are unprotected and 21 of which are protected by audible and visual signals. There are 13 highway and roadway bridges over the CV system in Massachusetts.

In 1973 the Central Vermont carried 2.3 million tons. Harbridge House¹² projects:

the total rail traffic of the Central Vermont is projected to have a growth rate of 7.3 percent by 1980, thereby increasing its 1973 volume of 2.3 million tons to slightly over 2.5 million. Shipments bridging the Central Vermont will show the greatest increase.

Projected Totals: CV

<u>Traffic</u>	<u>1973 Tonnage</u>	<u>1980 Tonnage</u>	<u>1973-1980 Growth Rate (%)</u>
Local	26,110	27,025	+3.5
Forward	109,036	111,410	+2.2
Received	829,034	880,912	+6.2
Bridge	<u>1,369,515</u>	<u>1,484,118</u>	<u>+8.4</u>
Totals	2,333,695	2,503,465	+7.3

¹⁰ MCA Corporation, Ibid.

¹¹ Central Vermont 1974 Annual Report to the ICC.

¹² Harbridge House, Inc., June 1975, Traffic Volume Projections for 1980: New England Railroads.

(Central Vermont--cont'd.)

Major commodities carried by the CV are projected to show the following growth rates.

<u>Share of Traffic Type, 1973 (%)</u>		<u>STCC</u>	<u>Commodity Category (primary component)</u>	<u>1973-1980 Growth Rate (%)</u>
LOCAL				
(1)	66	2042	Prepared feeds, animal, fish, and poultry	0.0
(2)	22	2432	Veneer and plywood	+19.0
FORWARDED				
(1)	20	265	Containers and boxes, paperboard	+10.0
(2)	18	263	Paperboard, pulpboard, fiberboard	+15.0
(3)	12	2432	Veneer and plywood	+ 8.0
(4)	12	2611	Pulp and pulp mill by-products (pulp)	+ 3.0
RECEIVED				
(1)	19	0113	Grain (corn)	+ 9.0
(2)	13	2041	Flour and other grain mill products (wheat middlings, by-products)	+15.0
(3)	12	2042	Prepared feeds, animal, fish, and poultry	+17.0
(4)	6	1121	Bituminous coal	-69.0
(5)	5	2912	Liquified petroleum and coal	+23.0
<u>Share of Traffic Type, 1973 (%)</u>		<u>STCC</u>	<u>Commodity Category (primary component)</u>	<u>1973-1980 Growth Rate (%)</u>
BRIDGE				
(1)	26	262	Paper, except building paper	+14.0
(2)	13	2611	Pulp and pulp mill products	+16.0
(3)	9	2421	Lumber and dimension stock	- 3.0
(4)	6	329	Abrasives and asbestos products (light-weight aggregates)	-21.5
(5)	3	2912	Liquified petroleum and coal gases (LPG)	-10.0
(6)	3	0113	Grains (corn)	+10.0
(7)	2	147	Chemical and fertilizer minerals (phosphate, rock salt)	-20.0
(8)	2	149	Miscellaneous non-metallic minerals	+ 6.0
(9)	2	3241	Hydraulic cement (Portland)	+26.0
(10)	2	263	Paperboard, pulpboard, fiberboard	+10.0

Providence and Worcester (P&W)

The Providence and Worcester Railroad, totaling 148 miles of routes, yard, siding and switching track, links the city of Providence, Rhode Island, with the Massachusetts cities of Worcester and Gardner. At Worcester, the P&W interchanges with ConRail and the B&M. At Gardner, the railroad interchanges with the Boston & Maine on that carrier's mainline connecting with Boston on the east and Mechanicville, New York, in the west. Total P&W track miles in Massachusetts is 83.6.

Although the P&W has been improving the condition of its right-of-way, recent engineering evaluations have indicated that an expenditure of a minimum of \$783,000 to upgrade the lines and remove slow orders is needed.¹³

In its four-year operating existence, the Providence and Worcester Railroad has demonstrated itself to be an aggressive marketer of its services. It operates seven new diesel locomotives with an eighth to be delivered in September, 12 leased insulated box cars, and one caboose. In 1974, the railroad had operated 112,721 locomotive miles and 57,423 unit train miles. Its ton miles equalled 49,646,329 and its revenue ton miles amounted to 639,138.¹⁴ In 1975, the company handled 15,682 cars in road-haul and switching service.

The carrier operates over 30 grade crossings in Massachusetts; one is unprotected, 16 are protected by audible and visual signals, and ten by visual signals only. The average weight of rail is 115 pounds. The carrier maintains its rail on a 3,200 ties-per-mile basis and in 1975 had replaced 12,100 ties in Rhode Island and Massachusetts, layed two tons of 119-pound second-hand rail, and rebuilt three grade crossings in Massachusetts.

During 1975, the company lowered the rail bed under Central Avenue bridge in Millville (MA) increasing the height from 16'3" to 18'3" to accommodate TOFC traffic, and repaired bracing in the rail bridge over the Blackstone River in Wilkinsonville, Massachusetts.

On April 1, 1976, the P&W acquired rail lines in Massachusetts, Connecticut and Rhode Island, most of which were slated for abandonment under USRA's Final System Plan. These lines include:

Webster to Southbridge, USRA Line No. 40:	10.6 miles
Auburn to Putnam (CT), USRA Line No. 678A:	20.5 miles
Worcester to Auburn:	4.0 miles
Putnam, CT, to Plainfield, CT:	17.8 miles

¹³ MCA Engineering Corporation, Ibid.

¹⁴ P&W 1974 Annual Report to the ICC.

Plainfield, CT, to Willimantic, CT:	26.0 miles
Cranston, RI, to Pontiac, RI:	9.0 miles

These acquisitions made P&W a three-state carrier, increasing its mileage by 87.6 miles. As a result of these acquisitions, P&W doubled its traffic volume.

Harbridge House¹⁵ projections are:

Over a 12-month period, from July 1973 through June 1974, the Providence and Worcester carried 489,000 tons of freight, excluding minor quantities of local and bridge traffic. By 1980, the annual tonnage is expected to increase 7.0 percent to just over 523,000 tons.

Projected Totals: P&W

<u>Traffic</u>	<u>1973 Tonnage</u>	<u>1980 Tonnage</u>	<u>1973-1980 Growth Rate (%)</u>
Forwarded	134,900	145,586	+ 7.9
Received	<u>353,947</u>	<u>377,719</u>	+ 6.7
Totals ¹	488,847	523,305	+ 7.0

Major commodities carried by this railroad are expected to increase as follows:

<u>Traffic Type, 1973 (%)</u>	<u>STCC</u>	<u>Commodity Category (primary component)</u>	<u>1973-1980 Growth Rate (%)</u>
FORWARDED			
(1) 26	3312	Primary iron and steel products	+ 8.0
(2) 18	2661	Building paper and building board	+ 18.0
(3) 11	4024	Paper wastes and scrap	+ 9.0
(4) 8	4021	Metal scrap waste and tailings	+ 12.0
RECEIVED			
(1) 18	1471	Chemical and fertilizer minerals	+ 4.0
(2) 12	4021	Metal scrap, waste, and tailings	+ 9.0
(3) 7	2082	Malt liquors	+ 19.0
(4) 6	3295	Non-metallic earths and minerals	+ 8.0
(5) 6	2621	Paper, except building paper	+ 2.0
(6) 4	2821	Plastic materials	+ 19.0
(7) 3	2041	Flour and other grain mill products	- 3.5
(8) 3	2647	Sanitary paper products	+ 20.0

¹Totals do not include local or bridge traffic.

¹⁵ Harbridge House, Inc., Ibid.

Grafton and Upton Railroad Company (G&U)

Headquartered in Hopedale, Massachusetts, the Grafton and Upton operates a total of 20.32 miles of track including siding and switches between the cities of North Grafton and Milford, Massachusetts. Operating with nine employees and two diesels, the railroad carried 59,857 revenue tons and produced 431,348 revenue ton miles on its rights-of-way in 1975.

This shortline railroad operates over 34 highway crossings and two bridges. Average rail weight is 85 pounds. In 1975 the company replaced 276 ties on a basis of 2,880 ties per mile. Its diesels accumulated 15,631 locomotive miles and 6,273 train miles.¹⁶

Fore River Railroad Corporation

The Fore River Railroad Corporation is owned and operated by the General Dynamics Corporation of St. Louis, Missouri. The company's ship building operation in Quincy and the Proctor and Gamble manufacturing operations are the principal users of the line.

Operations take place between the City of Quincy and the town of East Braintree on 3.76 miles of track which include 1.35 miles of switching track. The railroad owns 1.83 miles of track and leases 1.93.¹⁷

Rail weights range from 85 to 115 pounds. Thirteen company employees operate the railroad; three as an extension of their General Dynamics duties and ten as full-time railroad employees. In 1975, 600 ties were replaced on a basis of 2,720 ties per mile. No rail required replacement. The line is operated with two 600 horsepower diesels.¹⁷

Stony Brook Railroad Corporation (SB)

The Stony Brook Railroad Corporation is headquartered in Boston. Controlled by the B&M, its 11-mile long right-of-way represents the Boston & Maine line that runs from the junction called Willows (east of Ayer) to North Chelmsford. Stony Brook trackage also includes an

¹⁶ Grafton and Upton 1974 Annual Report to the ICC (an update).

¹⁷ 1974 Fore River Railroad Annual Report to the ICC (an update).

additional 6.41 miles of side track, switching and yard track. The B&M is responsible for maintaining the right-of-way.¹⁸

Vermont and Massachusetts Railroad Company (V&M)

The V&M is headquartered in Fitchburg, Massachusetts, and owns a 60-mile line of right-of-way from that city to Greenfield, Massachusetts. Crossovers, turnouts, way switching and yard switching add another 62 miles of track to bring the total right-of-way owned by the company to 122 miles. The company leases its line to the Boston & Maine which is responsible for its maintenance. The line is a component of the B&M east-west mainline.¹⁹

Norwich and Worcester Railroad Company (N&W)

The N&W is headquartered in Worcester, Massachusetts. At present the N&W owns no rolling stock and does not engage in carrier activities.

Holyoke and Westfield Railroad Company

With major financial control held by the City of Holyoke, this 10.40-mile long right-of-way with accompanying trackage in switches and yards of 10.22 miles was leased by the Penn Central, now CRC, which is responsible for maintenance.²⁰

¹⁸ Stony Brook Railroad 1974 Annual Report to the ICC (an update).

¹⁹ Vermont & Massachusetts 1974 Annual Report to the ICC (an update).

²⁰ Holyoke and Westfield 1974 Annual Report to the ICC (an update).

B. Short Line Railroads

Five business groups have approached EOTC about their intentions of running short line railroads in the Commonwealth. It is our opinion that a well-run and well-managed short line railroad can, in many cases, provide a higher quality of service at a lower cost on light density branch lines than can a major trunk line railroad. In particular, a responsible short line has the potential to be more sensitive to a local area's needs.

This office has worked closely with several groups making it clear that our endorsement is contingent upon their satisfying good business practices; our intent is to insure long-range rail freight service. As all of the short line rail proposals to date concern areas that have high unemployment and low development rates but good industrial potential, we are concerned with not only giving the present businesses as good rail service as possible but with attracting new businesses with the improvement of rail service.

Therefore, this office and the Department of Commerce and Development have been particularly sensitive to the needs of the present and potential local shippers; local support is one of the criteria upon which any decision would be based.

None of the following companies has submitted a final proposal for operation.

The Bay Colony Corporation

Bay Colony Railroad, headquartered in Wareham, has plans to service the rail freight needs of Cape Cod from Middleboro to Hyannis, South Dennis and Falmouth.

The Berkshire Railroad Company

Headquartered in Berlin, Connecticut, the Berkshire Railroad Company has plans to operate freight service, as an independent railroad, from Berkshire Junction in Danbury, Connecticut, north to Pittsfield, Massachusetts, on the Berkshire Division, and from North Adams Jct. north to North Adams, Massachusetts, on the North Adams Branch Line. BRC intends to obtain operating rights for the approximately two-mile section of track now owned by ConRail between Pittsfield and North Adams Junction.

Cape Cod Railways, Inc.

The Samuel M. Pinsly Company met recently with EOTC to discuss their desire to run a short line railroad, to be called Cape Cod Railways, Inc., on Cape Cod from Middleboro to Falmouth, Hyannis and South Dennis. As of yet they have submitted no proposal but have plans to formulate an independent freight and passenger/excursion line. The company presently owns and operates five short line railroads, all outside the Commonwealth.

Massachusetts Central Railroad Corporation

Incorporated by an act on December 16, 1975, the Massachusetts Central Railroad has plans to become a short line freight railroad and passenger excursion line on the Wheelwright and Ware River Secondary tracks (Palmer to South Barre, Hardwick to Wheelwright), and from Northampton through Amherst and Belchertown into Bondsville. This route would provide MCRR with connections to three major Massachusetts railroads (Central Vermont, ConRail and Boston & Maine). Their preliminary proposal mentions the possibility of a connection with yet another railroad, the Providence and Worcester, at Holden if traffic warrants a 14-mile extension over abandoned rights-of-way between South Barre and Holden.

The Millbury Railroad Corporation

Having recently petitioned the Legislature, the Millbury Railroad Corporation has not yet been officially incorporated. However, MCR proposes to own and operate the Millbury to Millbury Junction line which is currently owned by the Penn Central estate. Rail freight service on that line has been discontinued but the former users of that service have not relocated and have expressed interest in the past to return to rail.

C. Passenger Service

The rail passenger services presently operated in the Commonwealth consist of intercity operations by Amtrak and Boston area commuter operations by ConRail and the Boston & Maine.

Amtrak

The principal Amtrak operations in Massachusetts are those from Boston southward through Providence, Rhode Island; New Haven, Connecticut, to New York and points south and west and from Springfield southward to Hartford, Connecticut, and New Haven, Connecticut, and points south and west. Between Boston and New York, there are approximately ten trains per day each way. Between Springfield and Hartford or New Haven there are approximately eight trains daily each way.

In addition Amtrak operates one train per day each way between Montreal, Quebec, and Washington, D.C., and one train per day each way between Boston and Chicago, Illinois. The Montreal-Washington trains make stops in Springfield and Northampton. The Boston-Chicago trains stop in Boston, Framingham, Worcester, Springfield and Pittsfield, Massachusetts.

Commuter Rail Services

The Commonwealth of Massachusetts and Massachusetts Bay Transportation Authority (MBTA) support extensive commuter rail passenger service radiating south, west and north of Boston. To preserve and facilitate continuation of these services, the MBTA has acquired 145 miles of Penn Central right-of-way and is in the final stages of acquiring 270 miles of Boston & Maine rail lines.

Boston & Maine operated commuter rail services connect Boston with the following cities and towns:

Belmont	Woburn	Wilmington	Melrose	Wakefield
West Medford	Haverhill	Malden	Salem	Beverly
Lawrence	Lynn	Swampscott	Manchester	Gloucester
Reading	Ipswich	Newburyport	Winchester	Arlington
Hamilton	Billerica	Concord	South Acton	
Rockport	Lincoln	Lexington	Bedford	
Waltham	Cambridge	Lowell	Andover	

Average ridership on these commuter lines is nearly 9,000 passengers a day. All of the B&M commuter services are operated under contract to the MBTA.

ConRail commuter rail operations connect Boston with the following cities and towns:

Newton	Norwood	Sharon	Canton
Wellesley	Plimptonville	East Foxboro	Stoughton
Natick	Walpole	Mansfield	Providence, RI
Framingham	Norfolk	Attleboro	
Needham	Franklin	Pawtucket/Central Falls, RI	

Average daily ridership along these lines is approximately 6,000 persons. All of these services are operated under contract to the MBTA except the services to Stoughton, Mansfield, Attleboro and Providence, Rhode Island.

D. Classification of Lines

In conformance with 49 CFR 255.9(b)(2)(iii), we list here the classification of rail lines in the Commonwealth:

- (1) Rail services in the Final System Plan are those of ConRail with the exception of Penn Central lines excluded from the Final System Plan.
- (2) Rail services of railroads which are not railroads in reorganization but which continue in operation are those of the Grafton and Upton Railroad Company (see page II.12), the Providence and Worcester Railroad Company (see page II.10), the Fore River Railroad Corporation (see page II.12) and the Central Vermont Railroad Company (see page II. 7).
- (3) Rail services of railroads in reorganization which were not included in the Final System Plan are those operated by the Boston & Maine Corporation (see page II.4) and the B&M-owned or leased properties (see pages II.12 and 13).

Categories (D) and (E) rail service of railroads in reorganization for which the state does not and does, respectively, desire to receive federal assistance are detailed in Chapter IV, Branchline Program.

III. THE 1976 RAIL PLANNING PROCESS

A. Description

This Office views continuation of freight and passenger rail service as a response to public initiative and demonstrated public need.

In planning this program of rail service assistance, the EOTC has relied heavily upon input from a number of interested bodies in the private, public and business/industry sectors. These bodies include:

Public Response--The Commonwealth has long been active in protecting the public rights where rail abandonments have been requested from the ICC. Through this public process, Massachusetts has come to be active in aligning itself with those forces that demonstrate justifiably the need for continued rail operations.

In pursuit of an equitable decision which resolves the disposition of continued service on branch lines, the Commonwealth continues to call for area meetings through which the public may comment and guide the Commonwealth as it proceeds to resolve the problems of acquisition, rehabilitation and continuation of rail services.

Surveys--In conjunction with the five other New England states, the Commonwealth of Massachusetts relied heavily upon the 1974 New England Regional Commission Rail-Use Survey to determine the rail users in the state and how vital rail freight service is to their continued operation.

In addition, the Commonwealth has surveyed the directly affected rail users a second, and in some cases, a third time to adequately determine freight rail use, options for use of alternative modes of transportation, potential use of rail, direct and indirect rail-related jobs, jobs that would be lost with the discontinuance of rail services, and the economic impact on business if rail service were to cease.

In addition, the surveys asked for specific information on traffic flow, commodities and other information which may throw special light on specific consignee needs.

Through the use of those surveys, material compiled by regional planning agencies, ConRail traffic flow information and material compiled from our own Monthly Rail User Reports, we prepared this edition of the State Rail Plan based on revisions of the previous edition of the plan.

Enabling Legislation--On December 31, 1975, the General Court of the Commonwealth enacted legislation entered into Chapter 859 of the General Laws of the Commonwealth as A Comprehensive Transportation Bond Authorization. This legislation authorizes the Executive Office of Transportation to acquire, rehabilitate, subsidize and/or bank rail rights-of-way. Funding to carry out this authority is to be derived from the sale of bonds in the amounts of \$4.5 million for freight-use branchline rehabilitation and acquisition, \$500,000 to be used to implement and/or continue subsidized operations on abandoned rights-of-way, and \$15 million for passenger transportation purposes. The rail-related portions of the Act are included as Exhibit

Area Meetings--The Executive Office of Transportation and Construction is both responsive to, and an initiator of, concerns which affect the welfare of the residents of Massachusetts. Thus, this Office has been holding public area meetings with business and municipal representatives to gauge their reaction to our branchline dilemma. These meetings have been held in the following cities and represent all the branchlines in question: Acton, Thorndike, Falmouth, South Dennis, Lowell, Worcester, Southwick, Ware, West Hanover, Hyannis and North Easton.

This Office, working in conjunction with those persons directly connected with the rail problem at the local level, formulated a program for the disposition of each of the branchlines which represented the best compromise between limited state funding and local needs and a wise and justified expenditure of public funds. The results of the decision in respect to each branchline is explained in the pages of Section V of this document.

B. Data Sources

In its decision-making, the EOTC is utilizing information available in the following documents:

Massachusetts Department of Public Works:

Highway location and capacity reports based on Tippetts-Abbett-McCarthy-Stratton engineering reports

Statewide Railroad Right-of-way Study prepared by TAMS for the Massachusetts DPW and the US DOT/Federal Highway Administration

County Series Maps

Harbridge House Inc.:

Studies prepared for the New England Regional Commission:

The Economic Impact of Rail Service in New England
(April 1975)

Traffic Volume Projections for 1980: New England
Railroads (June 1975)

Methodology for Determination of Environmental and
Energy Consumption Impacts (November 1974)

New England Railroad Traffic Flows Baseline Simulation
for 1973

New England Railroad Traffic Flows Baseline Simulation
for 1980

Reebie Associates:

New England Freight Traffic Flows (October 1975)

Freight Rail User Survey (August 1974)

Canadian Transport Commission--Systems Analysis and Research
Data Base Branch:

A Study of Amtrak's Effectiveness (November 1974)

Consad Research Corporation:

USRA Analysis of Community Impacts Resulting from the
Loss of Rail Service (February 1975)

Executive Office of Transportation:

Monthly LDL Rail User Report Form (Exhibit A)

United States Railway Association:

Final System Plan (July 1975)

U.S. Department of Transportation:

Rail Service in the Midwest and Northeast Region (February 1974)

Association of American Railroads--Accounting Division:

Freight Station Accounting Code Directory (April 1974)

Commonwealth of Massachusetts--Division of Employment Security:

Employment Review (monthly reports)

Massachusetts Trends (monthly reports)

MCA Engineering Corporation:

Study prepared for the New England Regional Commission

Condition of Railroad Track Facilities in New England
(March 1975)

C. Deficiencies

This Office is in the process of creating a staff of experienced rail planning and program personnel. Lack of the full staff desired, lack of actual operating data, and the uncertainties posed by the continuing failure of the Penn Central trustees to agree upon lease terms for the branchlines have led to deficiencies in this rail plan which we hope to overcome in the coming year.

1. Thus, with respect to our branchline program, the following deficiencies and their best avenues of correction are:
 - a. Lack of reliable cost and revenue data -- this is being obtained from actual records during the subsidy operation, unfortunately, the best process ConRail can produce does not provide accurate records until approximately four months after the actual month's operation;
 - b. Lack of precise rehabilitation and acquisition cost estimates -- the process for preparing this is beginning at the present time.
2. In respect to the overview of railroad operations in general, very little attention has been given to the functioning and needs of the Commonwealth's mainline rail network and system of branchlines not threatened with abandonment. As staff resources and proficiency develop, it is hoped that this system and its broad impacts on the Massachusetts economy can receive considerably more attention.

IV. BRANCHLINE PROGRAM

A. Program Summary

The Final System Plan of the United States Railway Association excluded 16 Massachusetts branchline segments from the ConRail system. However, the Final System Plan designated two of these lines, 40 and 678A, to the Providence and Worcester Railroad and the northern two miles of Line 13 in Lowell to the Boston & Maine Corporation. Of the remaining lines, service has been continued on six segments and is here proposed for subsidy through the duration of the five-year federal assistance program, three are owned or are being acquired by the Massachusetts Bay Transportation Authority (without continued freight service) and five are proposed for acquisition by the Commonwealth to preserve the rights-of-way for future use.

In evaluating each of these lines for potential state and federal subsidy assistance, this Office considered the following primary factors:

- a. **Costs:** Based largely on the figures developed by USRA in preparing the Final System Plan, inflated by approximately 33 percent to cover inflation to 1976, and modified as appropriate to suit changed conditions;
- b. **Economic Impact:** Primarily the estimated job loss resulting from rail service discontinuance (information was requested of each rail user);
- c. **Growth in Rail Use:** Reasonably tangible evidence that continuation of rail service would result in growth in rail traffic;
- d. **Industrial Development Potential:** The availability of land and buildings for future rail users and related local plans;
- e. **Passenger Service:** The likelihood of future rail passenger service;
- f. **Highway Capacity Constraints:** In all cases, the neighboring highways were found to have the theoretical capacity to carry the discontinued rail freight in equivalent truckloads, however, in several cases this additional truck traffic was most undesirable;
- g. **Environmental Impact:** In no case would the discontinuance of rail freight service on these lines lead to a serious impact on the local environment.

1. Service Continuation

The planned service continuation program is summarized in Table I. Six lines have been continued in operation since implementation of the Final System Plan, April 1, 1976. These lines are proposed for continued operation, rehabilitation, and acquisition by the Commonwealth.

The following line descriptions detail the particular reasons these lines merit state and federal subsidy assistance. In general, the effects of service discontinuance would be quite serious locally. Furthermore the lines have significant industrial development potential and a reasonable prospect of achieving over a period of time viable self-sustaining operation without the need for permanent operating subsidies.

These lines total over 85 miles, serve at least 40 Massachusetts businesses handling almost 3,900 annual carloads. The direct impact of loss of rail service would be the loss of 546 jobs. Indirectly, approximately 820 additional jobs would be lost or a total of approximately 1,365 jobs.

Assuming a 7.2 percent inflation factor in 1977, based on estimates made by the Council of Economic Advisors, the 1977 operating year costs should amount to \$1,187,085. If acquisition of the Penn Central lines should be concluded prior to the beginning of that operating year, lease costs on 85.3 miles of Penn Central right-of-way at \$2,100 per mile, totalling \$179,130, can be deducted from that sum leaving a net cost of approximately \$1,007,955.

With the state funding 10 percent of this cost, its cost for 1977 subsidized operations should amount to approximately \$100,795. Thus, the annual state cost per job saved is approximately \$74, and the estimated annual state cost per carload is \$26.

2. Rehabilitation

The proposed rehabilitation program is summarized in Table II. The program calls for rehabilitating those lines which are being continued in service and of moderate traffic density and significant future development potential to FRA Class II (25 mph maximum operating speed). This will produce lower operating costs, may allow for considerable traffic increases with only modest cost increases, result in safer and more reliable operation and should allow the lines to be operated with a minimum of annual maintenance for several years, thus lowering the annual maintenance costs.

All other line segments which are to continue in operation under subsidy are herein proposed for rehabilitation sufficient to insure continued operation at FRA Class I (10 mph maximum operating speed).

The estimated cost for this rehabilitation program is \$3,671,291. These estimates are based on USRA figures given in the Final System Plan. On-site physical evaluation of these six lines will provide more detailed cost estimates.

3. Acquisition

Generally, this Office believes that railroad rights-of-way deserve preservation and protection from indiscriminate dismemberment by sale of sections of rights-of-way or construction thereon. Once dismembered, they can be extremely difficult to reassemble for uses requiring such linear rights-of-way--transportation, transmission lines or recreation. Furthermore, on lines for which operation will be continued, acquisition will result in savings of the annual return on investment fee which must be paid to the present rail line owners.

Included in this rail bank program are five line segments which had been proposed in the December 1975 edition of the State Rail Plan for continued operation if the rail users would commit to funding a portion of the operating deficit. No rail users were willing to make such commitments, thus freight service on these lines was not continued. Rather, these lines will be acquired to preserve them for future possible use.

The lines designated for highest priority acquisition are those on which service will not be continued. These are accorded priority A1 through A5 (highest to lowest) in ascending order of their estimated price per mile. Prompt purchase of these lines will prevent their actual physical abandonment and the removal of ties, rail and other essential features. The total expected acquisition cost is approximately \$955,115 (in 1976 dollars, based on USRA estimated net salvage value).

The second priority for acquisition were lines to be preserved for future passenger service and present freight service, shown in Table II as Group B in descending order of priority by their estimated cost per mile. These three Cape Cod lines were acquired by the Massachusetts Bay Transportation Authority on May 1, 1976, and will be acquired by this Office from the MBTA in the future. The MBTA acquisition cost was \$307,655.

The third priority for acquisition is the lines on which service will be continued, designated Group C and listed in descending order of priority by estimated cost per mile. The total estimated cost for acquiring these lines is \$1,838,507.

The cost estimates listed here for acquisition are not based on actual real estate appraisals. This Office will enter into negotiations with the present owners for acquisition at the net salvage value level. There is some reason to believe that actual appraisals will show the estimates used herein (which are derived from USRA figures) to be high.

TABLE I: OPERATING SUBSIDY PROGRAM (in descending order of priority)

Line	End Points	Miles	Shippers	Annual Carloads	Direct Job Loss ¹	Est. Annual Subsidy ² (1976 dollars)	Proposed Trips per Year
I. To be continued with Massachusetts funding non-federal share of subsidy.							
17	N. Abington-W. Hanover	3.6	5	712	148	\$ 129,512	104
21	E. Sandwich-Hyannis	16.8	9	1,093	152	266,900	104
22	Yarmouth-S. Dennis	5.6	5	417	145		
8	Palmer-S. Barre	25.0	10	636	87	307,272	104/52
23	Buzzards Bay-Falmouth	13.8	4	526	9	145,408	52
13S	S. Sudbury-Chelmsford	20.5	7	470	5	258,264	104
<u>Total</u>		85.3	40	3,854	546	\$1,107,356	
II. Continued by other railroads without subsidy.							
13N	Chelmsford-Lowell	2.07	7	847	Acquired and operated by the B&M.		
40	Webster-Southbridge	10.6	5	216	Acquired and operated by the P&W.		
678A	Auburn(MA)-Putnam(CT)	20.5	21	424	Acquired and operated by the P&W.		
<u>Total</u>		33.17	33	1,487			

Footnotes:

¹Based on shipper-supplied information. An additional 1.5 times as many jobs would be lost indirectly.²Based on subsidy contract with ConRail and 15% contingency plus estimated right-of-way lease.

TABLE II: PROPOSED ACQUISITION AND REHABILITATION PROGRAM (in descending order of priority)

Line	End Points	Proposed Acquisition			Proposed Rehabilitation		
		Miles	Priority ¹	Est. Cost ²	Miles	Description	Est. Cost ³
I. To be acquired and rehabilitated for continued operation.							
21	E. Sandwich-Hyannis	16.8	B	\$ 307,655 ⁴	16.8	FRA II	\$ 882,248
22	Yarmouth-S. Dennis	5.6	B		5.6	FRA II	
23	Buzzards Bay-Falmouth	13.8	B			6.5 7.3	FRA II B. Bay-Otis FRA I Otis-Falmouth
13	S. Sudbury-Chelmsford	20.5	C1		20.5	FRA II	775,381
17	N. Abington-W. Hanover	3.6	C2		3.6	FRA II	168,893
8	Palmer-S. Barre	25.0	C3		14.0 11.0	FRA II Palmer-Ware FRA I Ware-S. Barre	1,330,946 376,465
	Subtotal	85.3			\$2,146,162		\$3,671,291
II. To be rail banked for potential operation.							
29	Wrentham-Cedar	9.7	A1	\$ 330,167		none	
30	Cedar-E. Walpole	3.7	A2	133,861		none	
54	Southwick-CT Border	7.9	A3	302,684		none	
6	Millbury-Millbury Jct.	2.7	A4	105,370		none	
19	Westdale-E. Bridgewater	1.9	A5	83,033		none	

(continued)

TABLE II: (Continued) PROPOSED ACQUISITION AND REHABILITATION PROGRAM (in descending order of priority)

Line	End Points	Proposed Acquisition			Proposed Rehabilitation		
		Miles	Priority ¹	Est. Cost ²	Miles	Description	Est. Cost ³
II. To be rail banked for potential operation.							
16	Plymouth Sec./Plymouth	.2	To be acquired by MBTA.			none	
25	Stoughton-Easton	5.6	MBTA owned.			none	
33	Forest Hills-Needham Jct.	6.8	MBTA owned.			none	
	Subtotal	38.5		\$ 955,115			
	To be acquired by EOTC:	111.2		\$3,101,277			
	To be acquired by MBTA:	12.6					
	Total	123.8		\$3,101,277			\$3,671,291

Footnotes:

¹ Priorities: A=for rail banking (highest priority); B=for future passenger use (second priority);
C=for continued freight service (third priority).

² Based upon USRA Final System Plan, modified by EOTC where appropriate (see text).

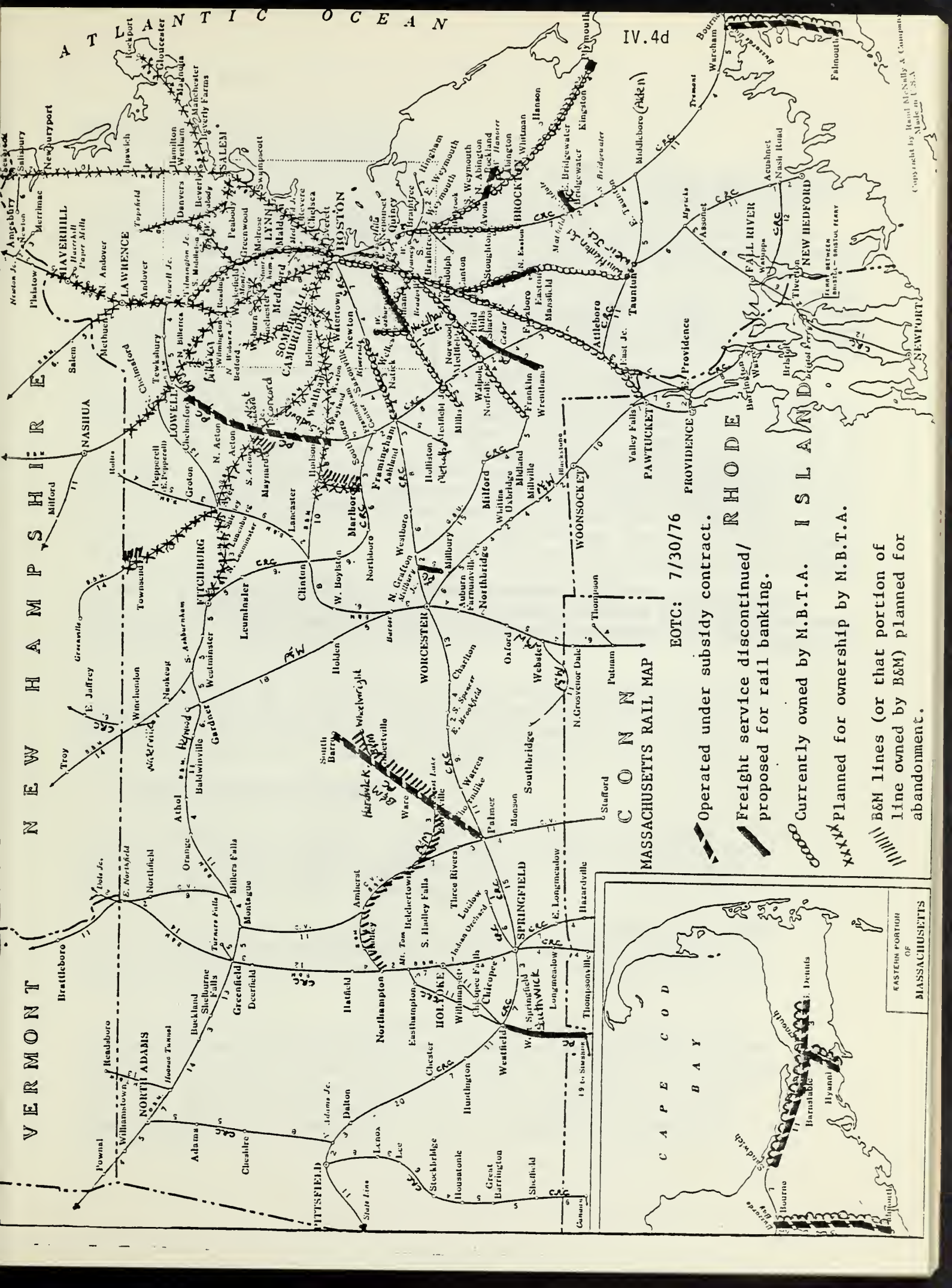
³ Based upon USRA Final System Plan.

⁴ Acquired on May 1, 1976, by the MBTA; to be acquired by EOTC.

VERMONT

NEW HAMPSHIRE

ATLANTIC OCEAN



IV.4d

MASSACHUSETTS RAIL MAP

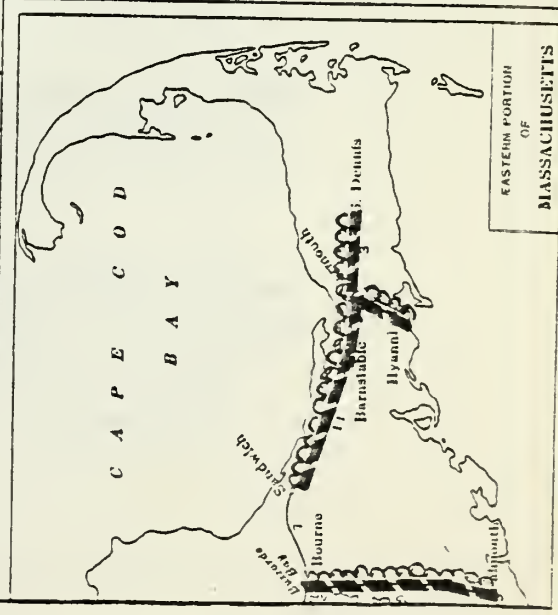
EOTC: 7/30/76

Operated under subsidy contract.

Freight service discontinued/
proposed for rail banking.

Currently owned by M.B.T.A. I S L A N D
Planned for ownership by M.B.T.A.

B&M lines (or that portion of
line owned by B&M) planned for
abandonment.



B. Description of Branchlines on which Freight Rail Services are Being Continued.

This section describes the six branchlines excluded from the Final System Plan, branchlines on which rail freight service is being continued under state and federal subsidy. The Commonwealth's commitment to continuing these rail services is based on the importance of the service to the local economies, the adjacent industrial development potential, and the clear potential that these lines can become viable and self-sustaining over time.

The first four months of continued service on these lines under the subsidy program have given local business and community interests an opportunity to show what they can and will do to assure continuation of vital rail services. Examples of their efforts are outlined in each line description and range from the commitment of private funds for rehabilitation of private properties over which service to several companies is provided to local businesses searching for ways to bring former users back to rail use and to the efforts of regional planning groups to help in a brush problem that has plagued consignees with damage to their shipments for several years.

The Executive Office of Transportation and Construction believes these early positive responses represent several factors which support our commitment to assuring rail services on these six branchlines.

MARKETING SUBSIDIZED BRANCHLINES

On lines continued in service under subsidy, the objective of the Executive Office of Transportation and Construction is to improve service, develop traffic, and lower costs in order to produce over a period of time viable operations that can be sustained without permanent operating subsidies.

We are, therefore, working to market the potential of these lines for the specific purpose of generating increased revenues which will offset the costs of branchline operations and create conditions which will assure the permanence of service required for the industries in the Commonwealth which must rely on rail freight for the economical transportation of the commodities used in their operation.

The EOTC is working closely with the chambers of commerce, local businesses, the Massachusetts Department of Commerce and Development, and interested elected officials and residents of affected communities to develop strategies and techniques for attracting rail-using industries.

Our efforts include field meetings which bring the shippers together at a facility on their branchline and the appointment of one or more coordinators on each branchline through whom this Office can reach the rail users and rail users can most easily communicate to this Office information of concern to all.

In addition, we have periodic written communication with the rail users and interested parties relating to ideas and techniques which can be useful for attracting other rail-using businesses to their respective branchlines. See Exhibit A for a sample of our efforts.

Monthly Branchline Reports

The Executive Office of Transportation and Construction has initiated a Monthly Branchline Report which is completed by each rail user on a subsidized line and returned to this Office no later than 20 days following the month being reported.

The report provides us with two basic areas of information. The first is information confirming the service rendered by the railroad, branchline traffic profiles on an annual basis, and company plans related to rail use.

The second area is applicable to our marketing strategies and utilizes the reported information in aggregate form to support, where applicable, any claims that the level of traffic growth, of increasing revenues, and of the suitability of a line for a specific industry type, can lead to a lower subsidy cost or to subsidy-free and more permanent operation. See Exhibit B for an example of the Monthly Report Form.

The Commonwealth has long supported the idea of public ownership of rail rights-of-way. Combined with proper scheduled maintenance and dependable service, it is our opinion that the railroads can win back traffic lost to other transportation modes because of service and equipment inadequacies.

The operation of the six branchlines which we have agreed to subsidize and rehabilitate will give us the opportunity to demonstrate the potential which has, up until this time, gone untested.

Line No. 8, Palmer to South Barre

The Ware River Secondary Track extends from Palmer (Milepost 0.0) to South Barre, Massachusetts (Milepost 25.0), a distance of 25.0 miles, through Hampden, Hampshire and Worcester Counties, Massachusetts.

1. Community Description

Line #8 provides direct freight rail service to four communities in the Ware River Valley area including Palmer, Ware, Hardwick and Barre.

The table below indicates the 1960 and 1970 U.S. Census population figures for each of the aforementioned communities as well as the percentage change in population over this ten-year time span:

<u>Town</u>	<u>1960 Population</u>	<u>1970 Population</u>	<u>Percent Change</u>
Ware	7,517	8,187	+ 8.2
Palmer	10,358	11,680	+ 11.4
Hardwick	2,340	2,529	+ 7.5
Barre	3,479	3,825	+ 9.9

2. Physical Characteristics

a.	Length	25.0 miles
b.	Track	single
c.	Railroad Bridges:	Location Condition
		Springfield Rd. in Palmer Fair
		Gibbs in Ware Very Good
		Ware River in Gilbertville Poor
		Meadowbrook in Hardwick Fair
		Hardwick Rd. in Hardwick Fair
		Ware River in Barre Plains Poor

d. Major Highway		
Grade Crossings	Hardwick (Local Roads)	3
	New Braintree (Local)	2
	Ware (Church St.)	1
	Ware (Local Roads)	2
	Ware (W. Warren & Anderson Roads)	2
	Palmer (Bennett St.)	1
	Palmer (State St.)	1
	Palmer (Church St.)	1
	Palmer/Three Rivers (Main Street)	1
	Palmer (Rte. 181)	1

e. Track Conditions

This branchline requires considerable upgrading to meet the Federal Railroad Administration's minimum safety standards which have a maximum safe operating speed of 10 mph. According to USRA data, this upgrading would include the replacement of a total of 12,500 cross ties (an average of 500 ties per mile). The USRA has estimated the 1973 cost to up-grade this line to FRA I to be \$559,400 or \$22,376 per mile. Since the line has continued to deteriorate, 1977 costs are projected to significantly greater magnitudes.

3. Present Rail Usage

During 1973, a total of 769 carloads were carried on the Penn Central portion of the branchline. The Boston & Maine carried 657 carloads for the same year.

This year (1976), due to the closing of two major users, since 1973, and to the prolonged economic depression, carloadings being carried by Con Rail are less than half the PC rate and the B&M traffic has been reduced to approximately 1/6th of its 1973 volume.

However, the decline is not due solely to the depressed state of the national economy being reflected in the local areas served by the branchline. The desire of both railroads

to cease service, the poor conditions of the rights-of-way, erratic service, and embargoes, were decisive factors in forcing former rail-users to use truck transportation or to re-locate plants elsewhere in Massachusetts, other New England states or in other parts of the country.

The commodities carried on this line to the remaining users continue to represent the mix of the 1973 and earlier periods; included are: paper, packaging materials, lumber, scrap metals, metals, foundry supplies including sand and coke, building supplies, farm supplies, feed grains, fertilizers and fabric wastes.

Service

The Commonwealth has contracted with ConRail to provide twice-a-week service between Palmer and Gilbertville, approximately 14 miles, and once-a-week service, when needed, between Gilbertville and South Barre which is at the end of the line at milepost 25.0. However, the line segment from Gilbertville to South Barre has been embargoed since November 1975 and efforts by this office to have service re-instituted by the Penn Central were unsuccessful.

Shippers in the South Barre area have assured the EOTC of at least 100 carloads per year when service is restored. Based on this assurance, the EOTC plans to restore service on the embargoed portion of track as soon as rehabilitation can be completed.

Currently Active Rail Users

Palmer	Federal Paperboard Company
Thorndike	Diamond International Corp.
Ware	Goldstein & Gurwitz Ludlow Corporation (served by B&M) Ware Lumber Co. Ware Machine Works Ware Metals, Inc. (served by B&M)
Gilbertville	Gilbertville Storage Co. Hersey Products Foundry
Old Furnace	Hardwick Farmers Cooperative

4. Impact of Rail Service Discontinuance

a. Economic Impact

The adverse economic impact of the discontinuance of

rail service, as identified by the present rail users on Line #8 in their responses to the Massachusetts Rail Study - Freight Transportation Survey conducted by the EOTC in the summer of 1975 is indicated in the table below.

Loss of Jobs if Rail Freight Service on Line #8
is Discontinued

<u>Present Number of Firms Using Rail Service</u>	<u>Present Number of Persons Employed by Rail Users</u>	<u>Job Loss Due to Aban- donment of Service Within One Year</u>
10	900	87

This projected job loss cannot be tolerated in an area which already suffers from an average unemployment rate in excess of 13.5% (down from 25% in 1975) according to the Massachusetts Division of Employment Security (April 1976). The most recent unemployment statistics for the Town of Ware show an unemployment rate in excess of 13.5%. The Diamond International Corporation alone, which is located in Palmer, has stated publicly that if rail service were discontinued to its Thorndike plant, it may be forced to relocate, threatening a loss of better than 375 jobs. The impact on these workers and on the communities as a whole would be extremely severe, furthering the human and social hardship in a geographic area which by all criteria must be considered economically depressed. Loss of rail service would also undoubtedly cut any significant growth in the number of new job opportunities in the Ware River Valley area by discouraging, if not eliminating, the possibility of attracting new industries to the area and/or allowing for the expansion of those industrial establishments now operating in this area. The recently completed Palmer Industrial Park, for example, would find it extremely difficult, if not impossible, to attract industry in the absence of rail freight service.

b. Industrial Growth

The attraction of new industrial firms and the potential for growth for existing firms is heavily dependent on the future of rail service in the Ware River Valley. Many existing industrial plants have already deferred expansion as a result of the uncertain future of rail service. Similarly, plants which have already been vacated have experienced serious difficulties in resale, again due to the uncertainties surrounding rail freight service. Utilizing the combination of the available physical plants in the Ware River Valley coupled with the available work force, an excellent opportunity exists for economic revitalization in the area.

c. Highway Capacity

A major traffic problem will result if rail freight service is abandoned on the Ware River Secondary Track. The area currently served by this branch is hilly and the highways in the vicinity have many curves and steep grades that are difficult to negotiate, especially in bad weather.

Route 32, which parallels the rail line, is a two-lane highway ranging from 20 to 53 feet in width with intersections not designed for the turning increments of large tractor trailers. At most major intersections this condition results in blocking adjacent lanes as trucks attempt to negotiate turns. Transfer of rail traffic to trucks would result in an increase of at least 4,000 trucks on local roads.

5. Marketing Plans and Business Interest

a. Generating Traffic

Since the release of the Phase II rail plan in December of last year, we have received several inquiries from the Ware River Valley area business community about our plans for this branchline. In each of the queries, the question has been based on a desire to expand use of rail services and for the purpose of evaluating sites for new plant construction and the re-establishment of rail services former users had abandoned.

Our replies include explanations of our intentions to rehabilitate the track structure and the contracting of service which will suit, as nearly as possible, the preferences of the rail users.

Generating increased and long-term use of the branchline is based on our rehabilitation plans. If rehabilitation can be begun in the near future, this office has commitments from rail users on the embargoed portion of this line which will generate upwards of 100 carloads annually. New plant construction along the line could add more than 1200 more carloads which would generate revenues on inbound shipments and outbound shipments.

b. Coordination of B&M and CRC Services

The EOTC has been holding discussions with rail users and with ConRail and B&M executives for the purpose of combining B&M traffic in Bondsville and Ware with the traffic entering the branchline via ConRail through Palmer. The approximate minimum increase in carloads from this

coordination agreement would be 250 initially on an annual basis with a growth potential of as many as 200 more carloads within the second year.

Companies that have expressed a strong desire for this kind of agreement include Diamond International Corp., Ludlow Papers and Ware Metals, in addition to the Boston & Maine Corporation.

6. Line Disposition

Given the merits of coordinating B&M traffic with that presently carried by CRC, the growth of traffic in the South Barre area, and, as expressed by the business community, the ideal locations available for new business development, we feel this line merits long term service continuation and a rehabilitation program that would support the growing confidence we see the business community developing in government ownership of rail rights-of-way.

The estimated annual CRC subsidy cost for 1976 is \$307,272 . A 14-mile segment of the line may qualify for rehabilitation to FRA II standards (a maximum of 25 mph operating speed) based on the prospects of growth potential as described above. The remaining 11 miles should receive rehabilitation to FRA I standards to provide safe and dependable rail services to consignees in South Barre.

Based on USRA data, rehabilitation is estimated to amount to \$1,707,411 or an average of \$68,096 per mile.

The line is proposed for acquisition by the Commonwealth. Based on USRA's estimate of the net salvage value of the line, the estimated acquisition price is \$914,622 or approximately \$36,584 per mile.

Line No. 13, South Sudbury to Lowell

The Lowell Secondary Track, excluded from the Final System Plan, extends from South Sudbury (Milepost 4.0) to Lowell (Milepost 26.5), a distance of 22.5 miles in Middlesex County, Massachusetts. As designated in the Final System Plan, the Boston & Maine Railroad acquired 2.07 miles of the line in Lowell. This acquisition by B&M shortened the line length actually threatened with loss of service to 20.5 miles--from South Sudbury to Chelmsford.

1. Community Description

The communities through which the Lowell Secondary Track passes are: South Sudbury, Sudbury, North Sudbury, West Concord, Acton, North Acton, Carlisle, South Chelmsford and Chelmsford. Rail users are located in West Concord, Acton and Chelmsford.

Population densities in the communities utilizing rail service through their industries are listed below. As of the April report from the Massachusetts Division of Employment Security's Massachusetts Trends, the communities suffer from an unemployment rate in excess of 8.7 percent.

Town	Population
Concord	16,148
Acton	14,770
Chelmsford	31,432
Total	62,350

2. Physical Characteristics

- | | |
|--|---|
| a. Length | 20.5 miles |
| b. Track | single |
| c. Railroad
Bridges | A total of 15 ranging from poor condition
to new. |
| d. Major Highway
Grade
Crossings | Route 20
Route 2
Routes 2A and 119
Route 25
Route 27
Route 110 |

There is a total of 26 highway crossings along the line.

e. Track Conditions

This line requires upgrading to meet the requirements of the Federal Railroad Administration's minimum safety standards of a Class I operating speed limit of 10 mph. The USRA has estimated the 1973 cost to upgrade this line to be \$510,300.

3. Present Rail Usage

Under our contract with ConRail, this line is served two days per week, Tuesdays and Thursdays, by train BX5 originating from Framingham and employing a four-man crew. In 1974, 1,037 carloads were moved over this line, a growth of 12 percent from 1973. Commodities include lumber, feed grains, building supplies, metals and chemicals.

Currently active rail users are:

<u>West Concord</u>	Concord Foundry, Inc. Concord Woodworking
<u>Acton</u>	Acorn Structures, Inc. Deck House, Inc. Wickes Lumber
<u>Chelmsford</u>	Agway, Inc. Harvey Building Supplies, Inc.

4. Impact of Rail Service Discontinuance

a. Economic Impact

If service were to be discontinued to the present users on this line, several related negative impacts would result. Those industries that can move their shipments by truck transport have indicated that they would have to pass on the higher costs to their customers. While this factor does not immediately threaten the existence of these industries, over the long term, due to competitive factors, these additional transportation costs would depress the growth of these companies and related job opportunities.

Several smaller companies would not survive if discontinuance of service were to take place, according to discussions this office has had with company officials at field meetings. The result of these company closings would, of course, mean the loss of jobs and somewhat higher prices for related goods drawn to this market from greater distances.

b. Industrial Growth

The line continues to offer excellent potential for growth of present industry and for the location of new industry. There are more than 50 acres of industrially zoned land contiguous to the rail line which are not adequately serviced by highway.

c. Highway Capacity

The Lowell through Concord area provides a network of highways and secondary roads with surface conditions ranging from fair to good. Route 27 winds back and forth across the line and carries an average daily traffic of 2,800 to 6,350 vehicles. However, a large portion of the rail traffic cannot easily be converted to truck transportation due to the nature of the commodities--i.e., materials used in foundry operations and components used in pre-fabricated home construction.

5. Marketing Plans and Business Interest

a. Generating Traffic

The businesses along this branch line have voluntarily agreed to work for the benefit of all by maximizing their use of rail services and by using themselves as examples for other industries interested in locating on subsidized lines.

Wickes Lumber in Acton provides temporary unloading facilities for Acorn Structures, Inc., and for Deck House, Inc., two component home builders. Neither of the latter has their own facilities; Acorn had to delay plans for building a siding in 1973 due to the Penn Central bankruptcy and the prospect of service abandonment, and Deck House is now in the last phase of completing a materials handling warehouse expansion designed to accommodate rail delivery and shipment.

These two companies, which had received rail shipments elsewhere on the PC system and on the B&M, are now receiving all of their shipments at the Wickes facility. Both companies are now eager to have their own spurs built to their sites.

Wickes Lumber is diverting as much traffic as possible to the line which ordinarily can be placed at locations receiving regular service in the ConRail system and in the B&M system.

b. Minimizing Operational Costs

Shortline railroad entrepreneurs and the Boston & Maine Railroad have begun to show increased interest in operating lines in the Commonwealth which are presently being operated under contract by Con-Rail. This office welcomes proposals which demonstrate that reliable freight services can be provided the customers at lower costs.

The EOTC feels that this branchline offers the potential of operational cost savings if shortline or other subsidy basis operations were handled out of Lowell rather than from South Sudbury which requires ConRail to travel approximately 7 miles before reaching the first customer in West Concord. Service from Lowell would mean travel of less than 2 miles to reach the first customer in Chelmsford and result in a maximum service distance to West Concord of approximately 13 miles.

Entertaining proposals such as this and its related rehabilitation and maintenance-of-way savings, combined with our ongoing marketing efforts, should give us the opportunity to minimize the cost of service to customers on this line over the long term.

6. Proposed Line Disposition

This line, from South Sudbury to Chelmsford, 20.5 miles in length, merits continuation of freight service. This conclusion is based on considerations of economic impact of service discontinuance, industrial development and factors indicating that the rail traffic is not entirely compatible with movement by truck. The industry located on this 20.5-mile section, in 1974, produced 190 carloads of traffic. This traffic figure is projected to bloom to 470 carloads or more when the two new industries located in the Acton area have their own sidings.

The estimated annual ConRail subsidy cost is \$258,264. This line is proposed for rehabilitation as needed. The Massachusetts Department of Public Utilities indicates that some segments exceed FRA II standards while others need upgrading to provide more efficient operation. Based on USRA rehabilitation to FRA I throughout the 20.5 length of the line, the EOTC estimates that rehabilitation costs (1976 \$) would amount to \$678,699. If all or portions of the line are retained in long-term service, they would most likely receive more extensive rehabilitation to FRA II which would amount to \$775,381 in 1976 dollars.

The line is proposed for acquisition by the Commonwealth to eliminate the return on investment fee and to facilitate rehabilitation under Massachusetts legislation. Based on USRA's estimate of the net salvage value of the line, the estimated acquisition price is \$769,380 or \$37,530 per mile.

Line No. 17, North Abington to West Hanover

The West Hanover Secondary extends from a junction with the Plymouth Secondary Track at North Abington (Milepost 0.0) to West Hanover (Milepost 3.6) in Plymouth County, Massachusetts. The branchline serves industries in the towns of Rockland and West Hanover.

1. Community Description

The table below lists the latest population figures available and indicates the area's growth trend between 1960 and 1970.

<u>Town</u>	<u>1960 Census</u>	<u>1970 Census</u>
Rockland	13,119	15,694
West Hanover	5,923	10,107

2. Physical Characteristics

a. Length 3.6 miles

b. Track Single

c. Railroad Bridges	Location	Condition
	MP 0.55 Culvert	Fair
	MP 1.06 Culvert	Fair
	MP 3.68 River	Fair

d. Major Highway Grade Crossings	Route 129
	Route 123
	Route 139

Total number of grade crossings: Eight ranging from poor to good condition.

e. Track Conditions

This line requires upgrading to meet the requirements of the Federal Railroad Administration's minimum safety standards of Class I Track which has a maximum safe operating speed of 10 mph. The USRA estimated the 1973

cost to upgrade this line to FRA Class I at \$109,600.

3. Present Rail Freight Usage

This line is served Tuesdays and Thursdays by train BX14, a local freight originating in South Braintree and employing a crew of four men. In 1974, 715 carloads were moved over this line consigned to eight customers -- up from the USRA estimate of 605 carloads in 1973. Conservative projections by the South Shore Rail Research Committee estimated that five companies would generate 769 carloads in 1975. The principal commodities moved over the line are: lumber, food stuffs, chemicals and propane gas.

Currently active rail users are:

<u>West Hanover</u>	Angelo's Supermarkets, Inc.
	Home Gas Corporation
	United Cabinet
	Unfinished Furniture House, Inc.
	Wes-Pine Millwork, Inc.

4. Impact of Rail Service Discontinuance

a. Economic Impact

The economic impact of the discontinuance of rail service as identified in the July 1975 Massachusetts Rail Study Freight Transportation Survey is shown below.

Loss of Jobs if Rail Freight Service on Line 17 is Discontinued

<u>Present Number of Firms Using Rail Service</u>	<u>Present Number of Rail User Employees</u>	<u>Job Loss Due to Aban- donment of Service Within One Year</u>
5	158	148

As can be seen by the figures, this threatened job loss is serious in light of the existing unemployment in this area and the effect discontinuance would have on the development of new replacement jobs. The Massachusetts Division of Employment Security reports that unemployment in the area as of April 1976 was 9.1%.

b. Industrial Growth

Rockland and West Hanover have active industrial development commissions which are working toward bringing light, rail-using industry to the area. Rail-using industry is preferred to prevent increased truck traffic from being added to the crowded highways in this part of Massachusetts.

The Town of Rockland is a fully sewered community and now has a major parcel of land available for industrial development. The South Shore Chamber of Commerce is working with a number of real estate developers and companies in an attempt to expand the use of freight rail services by area businesses and in new business development.

c. Highway and Bridge Capacity

Route 139 is the main traffic artery through these communities. It is a two-lane highway, 30 feet wide, with no shoulder between Abington and Rockland and a two-foot shoulder in Hanover. Average daily traffic ranges from 6,800 to 15,800 vehicles per mile. The highway passes through residential, business and wooded areas with speed limits of 35 mph and 45 mph. Additional truck traffic in small volume could be added to the highway, according to the Massachusetts Department of Public Works, but additional volume would aggravate the current heavy traffic conditions.

5. Marketing Plans and Local Business Initiatives

The businesses in this area of the Commonwealth are aggressive and particularly community oriented. During our field meetings, references are constantly made to the integral part the business sector plays in the welfare of the community. From this standpoint, then, the rail users have volunteered to work together for the benefit of all by maximizing their use of the line and to establish themselves as examples of what the business community can do to meet the challenge of preserving important rail services.

Examples of local faith in the continuation of service backed up by need are the following. Angelo's Supermarkets, the largest single user of rail services on the line, is expanding its warehouse facilities to accommodate its growing chain of food stores in southeastern Massachusetts. Halliday Lithograph, with its printing location in West Hanover and its warehousing operation in Plymouth, has expressed interest in consolidating its operations in West Hanover. Wes-Pine Millwork, Inc. has indicated some interest in expanding its product line which could result in increased carloadings of lumber. The remaining users look to traffic growth based on their respective annual growth projections.

Shared Switch Maintenance

Since this line crosses private property, owned by Wes-Pine Millwork, Inc. on which there are three switches, switch maintenance has been a cooperative effort between Wes Pine and users beyond its site toward the end of the line.

For more than a dozen years, Wes-Pine and the other users have been sharing the cost of maintaining and rehabilitating these switches. In May of this year, \$15,000 was spent on rehabilitation. The EOTC feels this is an excellent example of rail using businesses cooperating to assure themselves, as much as possible, continued service on their branchline.

6. Proposed Line Disposition

With its excellent prospects for major increases in traffic in the near future, this line merits long-term continuation of freight service. The estimated annual ConRail subsidy is \$129,512.

The line is proposed for acquisition by the Commonwealth to eliminate the costly return on investment fee charged to the line and to facilitate rehabilitation of the line under Massachusetts legislation.

Based on USRA's estimate of the net salvage value of the line, the estimated acquisition price is \$154,505 or \$42,918 per mile.

The West Hanover Secondary Track is proposed for rehabilitation to FRA Class II (25 mph) since long-term use appears to be definite. This operating level would lower operating costs and improve reliability and safety. Based on USRA figures, the estimated rehabilitation cost is \$168,093 or \$46,692 per mile.

Line No. 21, East Sandwich to Hyannis

The Hyannis Secondary Track extends from East Sandwich (Milepost 7.5) to Hyannis (Milepost 24.3) in Barnstable County, Massachusetts.

1. Community Description

This rail line provides service to the towns of Bourne, Sandwich and Barnstable. The table below lists the 1975 year-round population and estimated summer population which includes tourists.

<u>Town</u>	<u>1975 Year-Round Population</u>	<u>1975 Summer Population</u>
Bourne	14,971	35,862
Sandwich	7,392	20,132
Barnstable	<u>26,380</u>	<u>59,988</u>
Total	48,743	115,982
Barnstable County	124,564	428,986

2. Physical Characteristics of Line #21

a. Length	16.8 Miles	
b. Track	Single Track	
c. Railroad Bridges	Location	Condition
	Mill Creek (Sandwich)	Fair
	Rte. 6 Under (Yarmouth)	Good
d. Major Highway Grade Crossings	Rte. 6A in E. Sandwich	
	Hyannis Road in Barnstable	
	Rte. 28 in Hyannis	

Total number of grade crossings: 18

e. Track Conditions

Contrary to the USRA recommendations related in our Phase II rail plan, this line requires upgrading to meet the requirements of the Federal Railroad Administration's minimum safety standards of Class I track. However, in view of the

nearly 1,000 carloads of traffic moving over this line at the present time, and the potential this line offers for re-establishment of rail passenger service on Cape Cod, rehabilitation is planned to bring the line to an FRA II track classification.

3. Present Rail Freight Usage

Service is provided Mondays and Wednesdays on Line #21 with local freight BX18 originating in Buzzards Bay and carrying a crew of four. Major commodities carried are lumber, propane gas, sand, stone, packaging materials and plastics.

Currently active rail users are:

West Barnstable

Barnstable County Supply Co.
East Coast Paper and Packaging Co.

Hyannis

New Bedford Gas and Edison Light
John Hinckley & Son Co.
Cape Maid Farms
Cape Cod Ready Mix Concrete Co.
Myers Furniture
Suburban Gas Co.
Packaging Industries

4. Impact of Rail Service Discontinuance

a. Economic Impact

As stressed in our Phase II rail plan, the economic impact caused by the discontinuance of rail freight service would result in job losses to more than 150 persons during the first year and to more than 450 persons over a five year period.

This job loss cannot be allowed to take place considering the persistent unemployment problem on Cape Cod. According to Massachusetts Trends, Division of Employment Security, April 1976, the unemployment rate in Barnstable County is 11.6 per cent. On November 13, 1975, Barnstable County was designated a Title IV redevelopment area under the Public Works and Economic Development Act of 1975 as amended. This designation by the U.S. Department of Commerce, Economic Development Administration, will allow all the towns on Cape Cod to apply for EDA grants to encourage local economic development.

b. Industrial Growth

A 200-acre industrial park in Hyannis called Independence Park is ready for occupancy. Roads and utilities have already been installed throughout the area.

Success of this park in which Packaging Industries of Hyannis is located, is dependent to a large degree on the maintenance of rail freight service. Continuation of rail freight service is required in order that attempts to diversify the economic base of Cape Cod and thereby reduce unemployment caused by a tourist-based economy, will succeed.

In total, the Cape offers more than 1,300 acres of land for industrial use.

c. Rail Passenger Potential

The tourist industry on Cape Cod provides major passenger potential on Line #21. Total summer population on Cape Cod is about 430,000 of which nearly 130,000 are visitors from New York, New Jersey and the other New England States. Please see actions already taken in preparation for implementation of passenger services as explained in the section entitled Marketing Plans and Special Projects Related to Cape Cod Branchlines, Page IV.23.

d. Highway Capacity

Route 6 is the major highway artery used by truck and auto traffic. This modern six-lane highway carries a range of 3,200 to nearly 22,000 vehicles a day during the year. Given the environmental, energy, and safety impacts associated with traffic volumes of this magnitude, it would decidedly not serve the public good to discontinue rail services and burden the environment to a greater extent.

5. Proposed Line Disposition

This line justifies long-term continuation of freight service. Factors influencing this conclusion include the physical isolation of Cape Cod, employment impact of service discontinuance, industrial potential, growth potential of present users, and the benefits of future rail passenger service.

Because Line #21 and Line #22 (Yarmouth to South Dennis) are serviced by the same train and crew on the same days of the week, the estimated annual ConRail subsidy cost for operations includes both lines in the amount of \$266,900.

This line is proposed for rehabilitation to FRA Class II standards of a maximum of 25 mph operating speed since the better track operating standard should lead to lower operating costs, improved reliability and safety, and provide

a basis for passenger service improvements. The estimated rehabilitation cost is \$882,248 which equals approximately \$45,476 per mile.

Acquisition

See actions taken concerning acquisition of this line in the section entitled Marketing Plans and Special Projects Related to Cape Cod Branchlines, Page IV.33.

Line No. 22, Yarmouth to South Dennis

The South Dennis Secondary Track extends from Yarmouth (Milepost 0.0) to South Dennis (Milepost 5.6) in Barnstable County, Massachusetts.

1. Community Description

Line #22 provides service to Yarmouth and Dennis. The table below lists the 1975 year-round population and an estimated summer population which includes visiting tourists:

<u>Town</u>	<u>1975 Year-round Population</u>	<u>1975 Summer Population</u>
Yarmouth	16,285	48,050
Dennis	8,907	51,499
Total	25,192	99,549
Barnstable County	124,564	428,986

2. Physical Characteristics

- a. Length 5.6 miles
- b. Track single
- c. Railroad Bridges Bass River: Good condition
- d. Major Highway Willow Street
 Grade Union Street
 Crossings Great Western Road

Total number of Grade Crossings: 7

- e. Track Conditions:

As with Line #21, this line requires upgrading to meet the requirements of the Federal Railroad Administration's minimum safety standards of Class I track. The USRA had estimated the 1973 cost to upgrade this line to FRA Class II (25 mph maximum speed) at \$212,819.

3. Present Rail Freight Usage

This line is served Mondays and Wednesdays as a contiguous portion of Line #21 by train BX18 which originates in Buzzards Bay with a crew of four. The estimated ConRail subsidy covering the operating costs of these two lines is \$266,900.

Currently Active Rail Users:

<u>South Dennis</u>	Mid Cape Center & Nickerson Lumber Whitehead Bros.
<u>Yarmouthport</u>	Gold Star Nurseries
<u>South Yarmouth</u>	Cape Cod Gas Company
<u>Yarmouth and Hyannis</u>	J. Hinckley & Son (two locations)

4. Impact of Rail Service Discontinuance

a. Economic Impact

The economic impact of the discontinuance of rail freight service as identified in our Phase II rail plan remains unchanged. Job loss within one year could exceed 145 and more than 240 within five years.

As described in the impact on Line #21, unemployment has been so persistent in this part of the Commonwealth, the area has been designated a Title IV redevelopment area.

b. Industrial Growth

Yarmouth and Dennis at the present time have major industrial park areas adjacent to the branchline. These towns are attempting to attract new light industry in their efforts to expand their economic bases. Discontinuance of freight rail services would severely hamper their efforts.

c. Rail Passenger Potential

The tourist industry on Cape Cod provides a major passenger potential on Line #22 as total summer population on Cape Cod is about 430,000. There exists a growing market for intercity and commuter rail service.

d. Highway Capacity

Cape Cod is physically isolated, served by only two highway bridges and a rail bridge. The highway connections are severely congested during peak summer months. The discontinuance of rail service on Lines #21, 22, and 23 would

result in approximately 16,700 truck loads on the highways and bridges. Though this additional traffic would not be a major burden nor materially add to existing congestion, it is not desirable. Nor is it wise to further isolate the Cape Cod area by rail discontinuance. This area of Massachusetts is also isolated from the food product, soft goods, home and hospitality product and construction materials distribution sources. The results are that transportation costs become a major factor in determining the consumer price of almost every product used on Cape Cod. Combined with the impact of the persistent high unemployment rate, any inflation in the consumer price index works negatively against the economy of the area.

5. Proposed Line Disposition

This line merits long-term continuation of freight service. Factors influencing this conclusion include the physical isolation of the Cape, the impact on the unemployment level, industrial potential, growth potential of present freight rail use, and the potential for rail passenger service.

Line #22 is proposed for rehabilitation to FRA Class II in order to lower operating costs, improve reliability of the track structure and safety, and to facilitate passenger service improvements. Based on USRA figures, the estimated rehabilitation cost is \$882,248 or \$45,476.

The line is proposed for acquisition by the Commonwealth. Please see actions to be taken concerning acquisition in the section entitled, Marketing Plans and Special Projects Related to Cape Cod Branchlines, Page IV.33.

Line No. 23, Buzzards Bay to Falmouth

The Falmouth Secondary Track extends from Buzzards Bay (Milepost 0.3) to Falmouth (Milepost 13.8) in Barnstable County, Massachusetts. This line services Otis Air Force Base.

1. Community Description

Line No. 23 provides service to Bourne and Falmouth. The table below lists the 1975 year-round population and estimated summer population which includes visiting tourists.

<u>Town</u>	<u>1975 Year-round Population</u>	<u>1975 Summer Population</u>
Bourne	14,971	35,862
Falmouth	19,846	56,532
Total*	34,817	92,394
Barnstable County	124,564	428,986

2. Physical Characteristics

- a. Length 13.8 miles
- b. Track single
- c. Bridges: Location Condition
 - Rich Good
 - Barlow River Good
- d. Major Highway Monument Neck Road
 - Grade Hanson Road
 - Crossings: Scraggy Neck Road
 - County Road
- e. Track conditions

This line requires upgrading to meet the requirements of the Federal Railroad Administration's minimum safety standards of FRA I.

3. Present Rail Freight Usage

This line is serviced by engine BX18, a local freight out of Buzzards Bay. It carries a four-man crew and presently services the line on Fridays.

* Total includes 300 military employees.

Currently active rail users are Otis Air Force Base in North Falmouth and Falmouth Lumber Company, The Grain Mill and Wood Lumber Company in Falmouth.

The U.S. Department of Defense is totally committed to continued use of coal in the Base Central Heating Plant at Otis Air Force Base. Design of a major project for general rehabilitation of the heating plant, its heat distribution system and for installation of required environmental controls is nearing completion. This project alone will involve an investment of more than a million dollars. Also, in this connection, work has begun (in the summer of 1975) to extend the Air Force owned rail system to improve coal handling procedures as well as to improve methods of handling other materials. This involves an investment of about a quarter of a million dollars.

This line had been embargoed from Monday, February 2, 1976, until Friday, May 21, at about 4:20 PM. First delivery was made on Friday, May 28th. The embargo was due to a washout in sections of the track near Monument Beach after an unusually high tide and severe storm conditions. During this embargo period, deliveries were taken at Barnstable County Supply in West Barnstable.

4. Impact of Rail Service Discontinuance

a. Economic Impact

The economic impact of the discontinuance of rail freight service as identified in our 1976 edition of our Rail Plan remains unchanged. Jobs lost within one year would be approximately nine; however, the loss would have to be projected to more than 400 during a five-year period based on estimates of new permanent jobs becoming available with new federal projects being built and manned (see Section b: Industrial Growth) and with a new handicrafts shop complex being considered on the grounds of Otis Air Force Base.

b. Industrial Growth

Four major new facilities are presently being planned on the Otis Air Force Base Complex: (1) a Veteran's Administration National Cemetery for New England; (2) an anti-ballistic submarine launching radar system to service the eastern coast of the United States; (3) Coast Guard Headquarters for enforcement of the 200-mile fishing limit, and (4) handicrafts shop complex.

The Veteran's Administration National Cemetery for New England at Otis will be constructed on a 785-acre site beginning this year. After a phased development lasting five years, it is estimated that 100 year-round employees will be needed at a total annual payroll of about one million dollars.

The radar installation is part of anti-ballistic submarine launching radar system for the east coast. Another site is being planned for the Pacific coast. Construction is expected to commence late this year. Total construction costs are estimated to be \$20 million. About 100 to 125 year-round employees (90 percent civilian) will be required at the radar installation.

The Coast Guard, in planning for additional operational responsibilities, expects to double present equipment and material uses. Increased shipments of aviation fuel will be required to support the projected increase in air activity to enforce the 200-mile fishing limit. Employment is expected to go up from 230 to 460.

Otis Park, located on the grounds of Otis Air Base is presently being contemplated for completion in late 1977. The Park would be a colonial-type handicrafts center of shops and park areas employing as many as 100 persons on a permanent basis. In addition to the shops, nature trails and land conservation are planned to help make the Park a year-round tourist and area resident attraction.

If Otis Park becomes a reality, it could become an additional incentive to reestablish rail passenger service to the Falmouth area.

c. Rail Passenger Potential

The tourist industry on Cape Cod provides a major passenger potential on line 23 as the total summer population on Cape Cod is 430,000. This line also offers the long-term potential of serving Woods Hole, from which steamship service is available to Martha's Vineyard and Nantucket Island.

d. Highway Capacity

The problems of traffic congestion and the potential of exceeding highway capacity over the Sagamore and Bourne Bridges as described in Line 22 also applies to the Falmouth Secondary Track.

5. Proposed Line Disposition

The portion of this line from Buzzards Bay to Otis Air Force Base merits long-term continuation of freight service. The portion from Otis AFB to Falmouth merits at least short-term continuation of freight service and long-term preservation of the right-of-way. Factors influencing this conclusion include the growing rail traffic to Otis and the likelihood of future growth, the physical isolation of Cape Cod, the employment impact, and the potential for rail passenger service to Falmouth. The expense of serving the three shippers in Falmouth that are very light rail users may not be warranted in the long-run and is being examined during this first year.

The estimated annual ConRail subsidy cost is \$145,408. This line is proposed for acquisition by the Commonwealth. See further explanation in following section, Marketing Plans and Special Projects Related to Cape Cod Branchlines on page IV.33.

Line 23 is proposed for rehabilitation to FRA Class II (25 mph maximum operating speed) from Buzzards Bay to Otis AFB (a distance of 6.5 miles) since this portion is likely to be in long-term use and to lower operating costs, improve reliability and safety and to facilitate passenger service improvements. The remaining 7.3 miles to Falmouth must be upgraded to FRA Class I condition.

Based on USRA figures, the estimated FRA II rehabilitation cost is \$64,954 or \$9,993 per mile for the indicated 6.5-mile section and is \$72,404 for the FRA I 7.3-mile section or a total of \$137,358.

This line is proposed for acquisition by the Commonwealth. See actions to be taken concerning acquisition in the section entitled "Marketing Plans and Special Projects related to Cape Cod Branchlines," on page IV.33.

MARKETING PLANS AND SPECIAL PROJECTS RELATED TO THE CAPE COD BRANCHLINES

Cape Cod represents a unique phenomenon in the Commonwealth within the perspective of an area of continued population growth faced with large swings in unemployment levels. While increases in population should result in the growth of the business sector to provide goods and services, job opportunities have not kept pace with the pace of population increases. To compound the employment problem further, the tourist season brings great demand for short term employment, jobs often filled by young people from areas away from the Cape.

This summer, Cape Cod faces an unemployment level of nearly 12 percent. With the acquisition of the Cape rail lines by the Massachusetts Bay Transportation Authority, the Executive Office of Transportation and Construction in cooperation with the Cape Cod Planning and Economic Development Commission has put ten formerly unemployed men to work clearing brush from the rights-of-way and from grade crossings.

CETA Grant

The men are working under a CETA grant and were selected from more than 40 men who applied for the ten openings. The work is being supervised by a ConRail track foreman employed under the maintenance-of-way section of our subsidy contract with ConRail.

The benefits from this program include improved crew safety, improved highway crossing safety, reduced possibility of brush damage to shipments carried in open flatbed rail cars, and employment for ten men who otherwise would have remained unemployed during the summer.

The project is expected to last until September 30th, at which time a twelve-month extension may be taken to complete any unfinished work.

The brush clearing project is advantageous as a marketing tool since present and potential rail users have visible evidence that the EOTC is working to its fullest capability to improve operating conditions and to provide optimal conditions for the utilization of freight services.

Over the longer term, the clearance project makes way for the rehabilitation plans for upgrading the track to 25 mph operation and eventual passenger service from Boston and other parts of the country.

Acquisition of the Cape Branchlines

At the present time, the Massachusetts Bay Transportation Authority holds title to the three former Penn Central rail lines, purchased under Section 206(c)(1)(D) of the Regional Rail Reorganization Act for \$307,655. Since these rights-of-way are far outside the MBTA District and are appropriately part of a state program, the EOTC plans to acquire these lines from the MBTA at the time EOTC acquires the other rail rights in the state.

C. Description of Branchlines which are to be Acquired for Rail Banking Purposes.

This section presents the Commonwealth's program of acquisition of rail rights-of-way for "rail banking," i.e., for future restoration of rail service or other transportation use.

Existing rail rights-of-way in a heavily developed state such as Massachusetts often represent precious assets which would be very difficult and expensive to reassemble or reproduce once dismembered. For instance, some pass through heavily industrialized areas where future development may require rail service. Others pass through areas which are in the earliest stages of transition from semi-agricultural to light industrial development where it is important that the potential for service not be threatened by loss of these transportation corridors.

Where rail passenger service becomes a viable and more attractive alternative to highway expansion, rights-of-way which can be used for passenger transport should be retained to save cost, time and the hardships of highway expansion.

For these reasons, and with the aid of the federal and state funding available for these purposes, the EOTC proposes to acquire the rights-of-way identified in this section of the Massachusetts State Rail Plan.

Line No. 6, Millbury to Millbury Junction

The Millbury branch extends from Millbury Junction (Milepost 0.0) to the Town of Millbury (Milepost 2.7) in Worcester County, Massachusetts.

Prior to January 1975, the line was used to service two rail users; New England High Carbon Wire Company, and the A.D. Windle Company.

In its data gathering, the Executive Office of Transportation and Construction has learned that there are 28 acres of industrially-zoned land with rail and highway access in Millbury. Millbury is a satellite city of Worcester, a principal metropolis of Massachusetts, and a major interchange, destination and junction of rail traffic. The industrial acreage is a valuable asset for Millbury and this branchline.

The Commonwealth proposes to acquire the Millbury Branch to rail bank it for potential transportation use. The estimated acquisition cost, based on USRA supplied data is \$105,370.

Line No. 16, Plymouth Secondary Track at Plymouth

This portion of the Plymouth Secondary Track extends from Lothrop Street, Plymouth (Milepost 27.1) south toward Samoset Road (Milepost 27.3) in Plymouth County, Massachusetts.

1. Community Description

This section of the Plymouth Secondary Track is the termination of that branch line and is located in a densely populated area of this world-famous tourist area. According to the Plymouth Area Chamber of Commerce, this community is among the fastest growing in the Commonwealth having registered a 50 percent population increase in the period 1970-1975. The population mix and economy of the city is composed of persons employed in seasonal tourist oriented occupations and year-round service occupations and manufacturing.

Town	1970 Census	1975 Census (est.)
Plymouth	18,606	27,000

2. Physical Characteristics

- a. Length .2 miles
- b. Track single
- c. Railroad none
- Bridges
- d. Grade Crossings none
- e. Track Conditions

3. Impact of Rail Service Discontinuance

- a. Economic Impact

The EOTC uncovered no job loss that would result from discontinuance of service nor other economic burden that service discontinuance might create.

4. Proposed Line Disposition

The EOTC proposed in its Phase II that the Massachusetts Bay Transportation Authority consider purchasing this section of track from its present owners. The MBTA owns the Plymouth Secondary Track to Lothrop Street. This .2-mile section would make a natural termination point for passenger service to Plymouth. Acquisition of this section of track would allow passengers to unload and load within convenient walking distances of the community's landmarks, recreational facilities, hotels and motels, and the beaches.

The MBTA is now negotiating for the purchase of this line segment for the purposes outlined above.

Line No. 19, Westdale to East Bridgewater

The East Bridgewater Secondary Track extends from Westdale (Milepost 0.0) to East Bridgewater (Milepost 1.9) in Plymouth County, Massachusetts.

1. Community Description

This community is located south of Boston in an area which is experiencing a growth in population. Its economic base incorporates agricultural activity and light industry.

2. Physical Characteristics

- | | | |
|---------------------|---|------|
| a. Length | 1.9 miles | |
| b. Track | single | |
| c. Railroad Bridge | Over the Matfield River (MP 1.11),
in fair condition | |
| d. Grade Crossings | Route 106 | Fair |
| | Spring Street | Poor |
| | Union Street | Fair |
| | Central Street | Poor |
| e. Track Conditions | | |

This line would require upgrading to meet the requirements of the Federal Railroad Administration's Class I standards of a maximum operating speed of 10 mph. The USRA estimates the cost of rehabilitation to FRA I to be \$25,050.

3. Present Rail Freight Usage

This line had been serviced one day a week by train BX14 out of South Braintree employing a crew of four men. Although the office could locate no firms using rail service in March of 1975, later inquiries uncovered one user on the line, Kormanisky Brothers who received approximately ten carloads of agricultural commodities annually at a public delivery track in East Bridgewater.

1973 Penn Central revenues reported by the USRA were \$38,386 on a 112-carload basis resulting in a net operating deficit (before upgrading) of \$4,837.

4. Impact of Rail Service Discontinuance

a. Economic Impact

The EOTC could uncover no direct job loss if rail service were to be discontinued. The single rail user has indicated that he could receive his commodities at a team truck in Bridgewater on a ConRail line. However, the Board of Selectmen of the Town of East Bridgewater and its Industrial Development Commission had written to this office and have met with us to stress the importance this branch line has for industrial development in the town.

5. Proposed Line Disposition

In our Phase II plan, we suggested that if the Town of East Bridgewater wanted to provide the subsidy funds, we would negotiate a contract with ConRail to continue service.

The estimated annual subsidy cost (1976 dollars) was \$6,433 or \$643 per carload. The non-federal share after the first year would have been \$1,930 or \$193 per carload. The town declined to accept our offer.

The full line (1.9 miles) is proposed for acquisition by the Commonwealth to protect and preserve rights-of-way which offer the potential of use as transportation corridors, recreational areas, utility rights-of-way and to protect the option for rail-based industrial development. Based on USRA's estimate of the net salvage value of the line, the estimated acquisition price is \$83,033 or \$43,700 per mile.

Line No. 25, Stoughton to Easton

This portion of the Stoughton Branch extends from Stoughton (Milepost 4.4) to the end of the track near Easton (Milepost 10.0 in Norfolk and Bristol Counties, Massachusetts.

1. Community Description

This line provided public delivery team track service to rail freight users in Easton and surrounding communities. Easton is a satellite community of Brockton and Boston in which cities many Easton residents are employed.

2. Physical Characteristics

- | | |
|------------------------|--|
| a. Length | 5.6 miles |
| b. Track | single |
| c. Railroad
Bridges | Two over culverts and one
over Main Street |
| d. Grade Crossings | There are five public and four
private crossings ranging from
fair to poor condition |
| e. Track Condition | |

The line requires upgrading to meet FRA I track classification of 10 mph maximum operating speed.

3. Rail Freight Usage

In 1974, 126 carloads were unloaded in Easton; commodities included flour, sand and metals. 1973 Penn Central revenues were reported by the USRA to be \$31,609 resulting in a net loss of \$27,358 based on a total of 83 carloads.

Former rail users are:

Easton

Dayton Malleable Iron Co.
Silcon Trucking Co., Inc.
Simpson Spring Company

4. Impact of Rail Service Discontinuance

a. Economic Impact

The EOTC could uncover no direct job loss if rail service were terminated. The rail users indicated that they could pick up at a team track in Stoughton on the ConRail system. The Industrial Development Commission and some users indicated that continued service would attract more users of rail service and could result in some new warehousing being developed on or near the line to accept increased carload traffic.

b. Highway Capacity

The Massachusetts Department of Public Works reports that local streets and highways would not be affected by service discontinuance since the rail cars are presently being unloaded at a public delivery team track.

5. Line Disposition

The Stoughton to Easton portion of the line merited consideration for at least short-term continuation of service provided that the shippers and/or the Town of Easton funded the non-federal share of the operating subsidy. Neither the users of rail service nor the Town of Easton felt continued service warranted the expenditure.

The line is owned by the Massachusetts Bay Transportation Authority and is, therefore, not in danger of loss for potential industrial or passenger use.

Lines Nos. 29, Wrentham to Cedar, and 30, Cedar to E. Walpole

Line No. 29 is a portion of the Wrentham Secondary Track which extends from Wrentham (Milepost 15.7) to Cedar (Milepost 6.0) in Norfolk County, Massachusetts.

1. Community Description

The communities located on this line are Wrentham and Plainville which are not dependent on this line for maintenance of the economic base.

2. Physical Characteristics of Line No. 29

- | | |
|------------------------|--|
| a. Length | 9.7 miles |
| b. Track | single |
| c. Railroad
Bridges | Seven over culverts and roads
in fair to good conditions. |
| d. Grade
Crossings | Not available. |
| e. Track Conditions | |

The USRA estimated the cost to upgrade this line to FRA I operating standards to be \$248,970.

3. Rail Freight Usage

In the 1975 edition of the State Rail Plan, we reported that:

The former coal user reported to the EOTC that his firm had negotiated better rates with a trucking firm than he could with the railroad;

The two sand and gravel companies reported that, due to slow construction activities, they can ship gravel economically and conveniently by truck;

The concrete products manufacturer reported that he has no current need for rail service but if the economy turned around, he may be able to use service.

Circumstances surrounding this line have not changed.

4. Impact of Discontinuance of Service

a. Economic Impact

The EOTC could find no adverse consequences from service termination.

b. Highway and Bridge Capacities

The highways and bridges in the area are accommodating the present truck traffic created by these former users.

Line No. 30 extends from Cedar (Milepost 6.0) to East Walpole (Milepost 2.3) in Norfolk County, Massachusetts, and is 3.7 miles long.

The EOTC could uncover no users of rail freight service on this line and was able to determine that this line is necessary only to service the users on Line 29.

5. Proposed Line Disposition

This portion of the Wrentham Secondary Track does not receive freight rail service. However, because of the potential for use by the former users and to protect the right-of-way from dismemberment, the Commonwealth proposes to acquire both lines. Based on the USRA's estimated net salvage value, the estimated acquisition price of Line 29 is \$330,167 and that of Line 30 is \$133,861.

Since these lines are considered to be acquired for purposes of rail banking only, no rehabilitation is planned.

Line No. 33, Forest Hills to Needham Junction

This portion of the Needham Branch extends from Forest Hills (Milepost 3.3) to Needham Junction (Milepost 10.1) in Suffolk and Norfolk Counties, Massachusetts.

1. Description of Community

This line is located in the south and southwest portion of the City of Boston.

2. Physical Characteristics

- | | |
|------------------------|---|
| a. Length | 6.8 Miles |
| b. Track | Single |
| c. Railroad
Bridges | 12 over and under major roads
and the Charles River. |
| d. Track Conditions | |

This line requires no upgrading to meet FRA I classification.

3. Present Rail Freight Usage

There is no freight usage of this line at the present time. In 1974, 31 carloads of alcoholic beverages were unloaded in West Roxbury, roughly 4.0 miles from Needham Junction. In 1973, Penn Central revenues reported by the USRA amounted to \$29,932 resulting in a deficit of \$37,745.

4. Impact of Rail Service Discontinuancea. Economic Impact

The EOTC could uncover no direct job loss if rail service were to be discontinued to the former user. The former user, United Liquors, indicated that rail service was essential to the preservation of his business. However, there had been no decision prior to April 1, 1976 by the user concerning whether he would be willing to provide the funding that would be required to subsidize service. In keeping with our offer, expressed in the Phase II rail plan of 1975, to negotiate an operating contract with ConRail for parties interested in funding continued service, we are again reviewing the matter with the shipper.

b. Rail Passenger Potential

This line is currently used for rail passenger commuter service operated under contract to the Massachusetts Bay Transportation Authority. The continuation of this pass-

enger service is not affected by the discontinuance of freight rail service.

c. Highway Capacity

Discontinuance of rail freight service has no effect on local highways.

5. Proposed Line Disposition

This line is owned by the Massachusetts Bay Transportation Authority and is therefore protected from loss by the Commonwealth as a transportation corridor. The line requires no rehabilitation.

Line No. 54, Westfield to Southwick

This portion of the Holyoke Secondary track extends from Westfield (Milepost 31.7) to Stateline (Milepost 23.8), Massachusetts.

1. Community Description

This line provides service to the following communities in southwestern Massachusetts which are undergoing a transition from a tobacco farming economy to light industry. The table below illustrates the populations:

Town	1970 Census	1975 Estimate
Westfield	31,433	33,312
Southwick	6,330	7,220
Total	37,763	40,532

2. Physical Characteristics of Line #54

- a. Length 7.9 miles
- b. Track single
- c. Bridges Little River, Westfield
- d. Grade Crossings 7 public crossings, six of which are protected by automatic gates.
- e. Track Conditions

The USRA has estimated the 1973 cost to upgrade this line to FRA I operating standards (a maximum of 10 mph) at \$129,610.

3. Past Rail Freight Usage

In 1974, 43 carloads were unloaded in Southwick; the commodities included lumber and other building materials, and products used in tobacco farming. 1973 Penn Central revenues were reported by the USRA to be \$16,211 resulting in a net loss, before upgrading, of \$109,501 based on a total of 18 cars being delivered in Connecticut and 33 cars being delivered in Massachusetts.

Former rail users are:

Southwick

Fred B. Arnold & Sons
 Can-Pak Corporation
 Gilbert S. Arnold Tobacco Co.
 Battistoni Lumber
 Robert F. Arnold Tobacco Co.
 Pioneer Dairy Inc.
 Cul-Bro Tobacco Div., General Cigar Co.

4. Impact of Rail Service Discontinuance

a. Economic Impact

The EOTC could uncover no direct job loss if rail service were discontinued.

b. Highway Capacity

The Massachusetts Department of Public Works reports that Route 202, which parallels the rail line, is a two-lane undivided highway with horizontal curves. Route 202 is currently used as a minor truck route.

5. Proposed Line Disposition

Because the Town of Southwick felt that rail service would make industrial development in the area more attractive, EOTC offered to negotiate a service contract with ConRail if the towns and/or the shippers wanted to provide the non-federal share of the subsidy. Neither the towns nor the rail users accepted our offer.

The full line (7.9 miles) is proposed for acquisition by the Commonwealth to protect and preserve rights-of-way which offer the potential of valuable use such as transportation corridors, recreational areas, utility rights-of-way, and to protect the option for rail-based industrial development. Based on USRA's estimate of the net salvage value of the line, the estimated acquisition price is \$302,684 or \$38,314 per mile.

D. Description of
Lines Acquired and Operated by the
Providence & Worcester Railroad

Line No. 40, Southbridge to WebsterLine No. 678A, Auburn, Massachusetts, to Putnam, Connecticut

The Southbridge Secondary Track extends from Webster (Milepost .05) to Southbridge (Milepost 11.1) in Worcester County, Massachusetts, and Windham County, Connecticut. At Webster it connects with the Norwich Secondary Track.

1. Community Description

Line No. 40 connects the Massachusetts communities of West Dudley, Sandersdale and Southbridge. Commodities carried over the line include paper products and raw materials, lumber, grains, sand, residual oil, food stuffs and household goods.

2. Physical Characteristics

- | | |
|---------------------|---|
| a. Length | 10.6 Miles |
| b. Track | single |
| c. Railroad Bridges | As many as 25 over culverts, small brooks, canals and the Quinebaug River, in fair condition. |
| d. Major Highway | Route 12 |
| Grade | Route 131 |
| Crossings | A total of 12 public and six private crossings in poor to good condition. |

The portion of the Norwich Secondary Track, line no. 678A, extends from Putnam (Milepost 45.8) in Windham County, Connecticut, to Auburn (Milepost 66.0) in Worcester County, Massachusetts.

1. Community Description

Line 678A connects the communities of Webster and Oxford (south of Auburn and Worcester, Massachusetts) with the Connecticut communities of North Grosvenordale and Grosvenordale. Commodities carried on this line include food stuffs, steel, paper products and raw materials, grains, stone, silica and sand, chemicals, cloth and fabric wastes.

2. Physical Characteristics

- | | |
|---------------------|--|
| a. Length | 20.2 miles |
| b. Track | single |
| c. Railroad Bridges | Hugenot Road (condition not available) |
| | Route 12 " " |
| | French River " " |
| d. Major Highway | Sutton Road (condition not available) |
| Grade Crossings | Route 12 " " |

5. Disposition of Lines Nos. 40 and 678A

The Providence and Worcester Railroad was designated by the USRA to acquire and operate this trackage. On April 1, 1976, the first shipments moved via the P&W to consignees on these lines.

The lines are being operated without recourse to subsidy funding and have added 27 miles to the track operated by the P&W in Massachusetts.

V. THE FUTURE

This 1976 edition of the Massachusetts State Rail Plan is prepared largely on the basis of our evaluation of the USRA Final System Plan, our operating contract with ConRail, continued discussions with rail users and other interested parties, and several months' limited experience in branchline freight operation. The Plan will be revised annually but may be amended at other times as the need arises.

A. Long-range Strategy

Over the long run, continually subsidizing the operation of individual freight branchlines does not appear wise for the Commonwealth. Thus, the objective will be to make these lines self-sustaining or to help the shippers adjust their businesses, with the least disruption, to the discontinuance of uneconomic rail service.

Acquisition of rail rights-of-way by the Commonwealth will be done primarily to preserve such real estate in its continuous form. Acquisition will be used to consolidate the management of operations and to eliminate the return on investment fee that is due the present owners. Where a line becomes viable and self-sustaining, it will be sold to the operating railroad.

On lines which are being kept in service, rehabilitation will be carried out in either of two programs. A program of minimal necessary maintenance will be done where absolutely essential on lines which are being kept in service on a trial basis or which are being phased out of operation. A full and thorough program combining FRA Class I and FRA Class II rehabilitation will be undertaken on lines being kept in permanent service. Such a thorough rehabilitation will serve to lower the operating costs, improve reliability and safety, and serve to assure the shippers of the line's permanence thereby justifying their permanent investments.

The six lines designated in Chapter IV for continued operation looking toward permanent self-sustaining status, have been designated for the full and thorough rehabilitation program described above.

B. Planning

The Executive Office of Transportation and Construction is in the process of establishing a small permanent rail planning capability. Ongoing operating experience, analyses, and research will be utilized to prepare annually updated editions of this State Rail Plan.

This planning effort will be carried out cooperatively with other state agencies, with regional and local planning commissions, and with concerned citizens and interest groups.

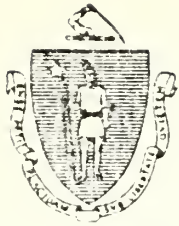
C. Administration

A small permanent administrative capability is being established within EOTC concurrent with the rail planning capability described above. This will administer the program of state and federal aid for branch-line service continuation and for acquisition and rehabilitation. It will draw upon the expertise of related state agencies in grant application and administration and in rail operations.

MASSACHUSETTS
STATE RAIL PLAN

August 1, 1976

EXHIBITS



FREDERICK P. SALVUCCI
SECRETARY

The Commonwealth of Massachusetts

Executive Office of Transportation & Construction

One Ashburton Place

Boston, Massachusetts 02108

MEMORANDUM

TO: Users of Freight Rail Services on Subsidized Lines

FROM: Peter J. Metz, Assistant Secretary

RE: Generating Greater Revenues

DATE: July 7, 1976

Now that our last series of meetings is behind us, I want to confirm the suggestions we shared for improving the subsidy economics of the branch lines:

- a) Whenever possible, on shipments originating beyond the ConRail system, request the shipper to give ConRail the long-haul. If you originate shipments for points outside the ConRail system, give ConRail the largest possible haul. A ConRail map is attached to show you the extent of the ConRail system and the many gateways available for shipments originating and terminating in the West and South.
- b) If possible, route traffic to the branch line that may now be terminating elsewhere.
- c) Promote use of freight rail services to your business neighbors on your line. Each additional carload creates additional revenues that help to reduce subsidy costs.
- d) Work with your Chamber of Commerce to develop industrial sites along your branch line and actively solicit the support of the Massachusetts Department of Commerce and Development to steer freight rail-using industry to your branch line. Commerce and Development's main telephone number is (617) 727-3221. Or you can call Fred Markey, Deputy Commissioner of New Business Development, at 727-3234.
- e) Consider using your own company as an example of proof of your faith in continued rail service by publicizing your plans for expansion or renovation tied to your use of freight rail service.
- f) Let your ConRail sales agent know that you expect dependable service and his help in using ConRail services to your fullest advantage.

We will soon be inspecting ConRail records showing the first quarter results of operational costs and revenues attributable to branch line business. While the inspection will be primarily to review ConRail procedures, we will also be comparing ConRail figures to those we find in the rail user Monthly Report Forms; please do not delay in returning your completed form to this office.

If you have any questions or comments, please do not hesitate to contact me, Tony or Sharmen.

The map illustrates the extensive ConRail network, connecting major urban centers and industrial hubs. Key features include:

- Major Cities and Regions:** Montreal, Boston, Providence, Worcester, Springfield, Hartford, New Haven, New York, Albany, Scranton, Binghamton, Syracuse, Rochester, Buffalo, Genesee, Corning, Elmira, Oswego, Tonawanda, Erie, Cleveland, Toledo, Detroit, Lansing, Grand Rapids, Chicago, Peoria, Danville, Evansville, Louisville, St. Louis, St. Paul, Minneapolis, St. Cloud, Duluth, Superior, and Milwaukee.
- Geographical Features:** Lake Ontario, Lake Erie, Lake Michigan, Lake Huron, Lake Superior, and the Atlantic Ocean.
- Inset Boxes:**
 - ConRail:** A logo for the Consolidated Rail Corporation.
 - Norfolk Southern:** A box detailing the company's history and services.
 - Pennsylvania Railroad:** A box detailing the company's history and services.
 - Other:** Various boxes providing information about specific rail lines and services.

[illegible][illegible][illegible][illegible][illegible][illegible][illegible]

*The Commonwealth of Massachusetts**Executive Office of Transportation & Construction**One Ashburton Place**Boston, Massachusetts 02108*

FREDERICK P. SALVUCCI
SECRETARY

INSTRUCTIONS FOR MONTHLY RAIL USER REPORT

The following explanation will help you complete the attached Monthly Rail User Report form. Extra copies of the forms are available from the Executive Office of Transportation and Construction or you may make copies for your use. We suggest that you make a carbon of each completed form for your files.

Paragraphs A, B and C are self-explanatory. Complete D and E only if applicable, otherwise insert "None". Paragraph F is explained as follows:

Column 2--Write "P" if pool car and indicate if box car, gondola, hopper, flat-bed, LNG tank, etc.

Columns 3, 4 and 5--For shipped carloads insert "S" date shipped from your facility and destination noted by City and State, i.e., Manchester, N.H., or Albany, N.Y., for example; for received carloads insert "R" date received at your facility and origin by City and State.

Column 6--STCC number (preferably four-digit if known).

Column 7--On received carloads, your supplier should provide you with the transportation costs.

The transportation charges, origin/destination and commodity information contained in these forms will be held confidential unless permission is obtained from the user to release it. The Executive Office of Transportation and Construction will prepare periodic public branch line reports aggregating much of this information for each branch line and listing the number of carloads for each rail user. These will be distributed to each rail user.

5/12/76
EOTC

EXHIBIT B

MONTHLY RAIL USER REPORT--TO BE COMPLETED AND FORWARDED TO EOTC NO LATER THAN 20 DAYS FOLLOWING THE CLOSE OF THE REPORTING MONTH

A. Company _____

Name of person supplying information _____

Title _____

Address _____

Phone _____

Location of Rail-using Facility _____

Month _____ Date prepared _____

B. Rail Freight:	Received	Shipped
Carloads	_____	_____
Tons	_____	_____
Transportation Charges	_____	_____
Demurrage and other Charges	_____	_____

C. Quality of service comments (list departures from scheduled service, bad order cars, any other problems or compliments): _____

D. Changes in tariffs affecting your shipments (commodity, size, date effective): _____

E. Your plans for any changes in rail use: _____

Company _____

Month _____

[illegible]

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MASSACHUSETTS
STATE RAIL PLAN

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Prepared for the Information
of the Citizens and Rail Users
of the Commonwealth and for the
Federal Railroad Administration
in Conformance with 49 CFR 266.9

by

The Executive Office of Transportation and Construction

Commonwealth of Massachusetts

August 1, 1977

PUBLICATION: #9894-107-400-877-CR

Approved by Alfred C. Holland, State Purchasing Agent



FREDERICK P. SALVUCCI
SECRETARY

The Commonwealth of Massachusetts

Executive Office of Transportation & Construction

One Ashburton Place

Boston, Massachusetts 02108

MEMORANDUM

TO: Parties Interested in State Rail Planning

FROM: Frederick P. Salvucci

This complimentary document is a copy of the 1977 MASSACHUSETTS STATE RAIL PLAN. Because public input is an important aspect of rail planning for the Commonwealth, we welcome your comments and suggestions.

If you would like to respond to this document, please address your correspondence to:

Peter J. Metz, Assistant Secretary
Executive Office of Transportation & Construction
One Ashburton Place, Room 1610
Boston, Massachusetts 02108

st



FREDERICK P. SALVUCCI
SECRETARY

The Commonwealth of Massachusetts

Executive Office of Transportation & Construction

*One Ashburton Place
Boston, Massachusetts 02108*

July 29, 1977

John R. Sullivan, Administrator
Federal Railroad Administration
400 Seventh Street, SW
Washington, D.C. 20590

Dear Mr. Sullivan:

Submitted herewith are ten copies of the 1977 Massachusetts State Rail Plan Update which has been prepared in conformance with 49 CFR 266. This document has been prepared by this office which, under Chapter 161C of the Massachusetts General Laws enacted in 1975, is the agency designated for planning and administration of the state rail program.

This Update includes significant revisions from the 1976 edition. The revisions are the result of more than a year of experience with and analysis of the operation of our branch line program; elective decisions by our rail users; and ongoing input from rail users, interested parties and the general public.

In this document, Chapter V, Section E, we have described our plans for an upgrading of the operating conditions of the physical plant. You will note that our estimates for bringing our branch lines to safer and more efficient operating standards than described in last year's plan show a smaller capital investment than had been estimated to achieve the somewhat lower operating performance detailed in the 1976 plan. We credit your staff as well as the capability of our state and consulting engineers with this achievement.

During the 1976 operating year, we expended considerable time and analytical skills to reviewing the manner in which ConRail, the contracted operator, performed. Specific comments relating to the quality of their service are to be found in Chapter V.

Massachusetts strongly desires to improve and strengthen its rail transportation system. We look forward to building on the cooperative working relationship that has developed with your staff. Should you or your staff members have any questions concerning this Plan, please be in touch with Assistant Secretary Peter J. Metz who is responsible for our rail program.

Sincerely yours,

Frederick P. Salvucci
Frederick P. Salvucci

encs.

FP:st

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VII. OVERALL PLANNING PROCESS FOR ALL TRANSPORTATION IN THE COMMONWEALTH

I. INTRODUCTION

Good rail service is of vital importance to Massachusetts: our rail freight system provides service on which approximately one quarter of all Massachusetts jobs are directly or indirectly dependent; our rail passenger system provides vital transportation for Boston-area commuters and for interstate travel. Given this importance, the tremendous amount of railroad facilities in place, and the energy efficiency and environmental compatibility of rail transportation, Massachusetts clearly must have a strong, dependable and viable freight and passenger rail system. But with the national rail system, the Massachusetts rail system is facing serious difficulties from the financial problems of the rail carriers and the resulting deterioration of facilities and service.

Thus in concert with federal initiatives, Massachusetts is developing a program to ensure the preservation and improvement of our rail freight and passenger system. This Massachusetts State Rail Plan, 1977 Edition, is a key part of this program.

The 1977 Massachusetts State Rail Plan has been developed in the context of existing Massachusetts rail legislation, Chapter 161C of the Massachusetts General Laws, and existing federal legislation, principally the Regional Rail Reorganization Act of 1973 and the Railroad Revitalization and Regulatory Reform Act of 1976. It draws upon a year's experience in the operation of subsidized rail freight branch lines and interaction with Amtrak and the railroads which serve Massachusetts. It includes the input and guidance obtained from consultation with Massachusetts industries, local officials and the public.

At the state level, Massachusetts is most actively involved in the preservation and revitalization of essential rail freight services that would have been abandoned or are threatened with abandonment. It is clear that this will continue to be a major and probably an expanding effort for years to come. Thus, there is heavy emphasis on this "branch line assistance program" in this Plan.

Massachusetts is also involved in rehabilitation of rail freight mainline rights-of-way and facilities (with aid from the New England Regional Commission), improvement of Northeast Corridor passenger service, development of new intercity passenger services, and ongoing evaluation of the institutional and financial problems of the New England rail system. At the regional level, the Massachusetts Bay Transportation Authority is operating and improving the commuter rail system of the Boston metropolitan area. All of these programs are also addressed in this 1977 Massachusetts State Rail Plan.

The state rail planning process is an evolving one--dramatically affected by a growing state involvement and responsibility in the rail transportation system. It draws upon input from all available sources, both public and private, and it is coordinated with other statewide and regional transportation planning. In particular it is attempting to relate to the needs of the state and regional economies and to state and regional development goals. This planning process will continue to be a flexible one that seeks input and guidance from all sources and all interested parties.

II. THE RAIL PLANNING PROCESS

A. History

Rail planning by the Commonwealth of Massachusetts significantly predates the Regional Rail Reorganization Act of 1973. The ongoing bankruptcies of first the New Haven and then the Boston & Maine railroads have been the subject of concern, study and planning since long before ConRail (or even Penn Central) evolved. Often, the Commonwealth's rail planning efforts were in conjunction with the other five New England states and regional organizations such as the New England Regional Commission.

In 1972, for example, a rather thorough study addressed the possible reorganization of the Boston & Maine both as an operating entity and also through "segmentation" of that railroad with different segments going to various other operating carriers.

Since late 1973, the Commonwealth's rail planning effort has, of necessity, expanded. There is a need to maintain at least the current level of effort for the next several years.

B. Description

This Office views continuation of freight and passenger rail service as a response to public initiative and demonstrated public need.

In planning this program of rail service assistance, the EOTC has relied heavily upon input from a number of interested bodies in the private, public and business/industry sectors. These bodies include:

Public Response--The Commonwealth has long been active in protecting the public rights where rail abandonments have been requested from the ICC. Through this public process, Massachusetts has come to be active in aligning itself with those forces that demonstrate justifiably the need for continued rail operation.

In pursuit of an equitable decision which resolves the disposition of continued service on branch lines, the Commonwealth continues to call for area meetings through which the public may comment and guide the Commonwealth as it proceeds to resolve the problems of acquisition, rehabilitation and continuation of rail services.

Surveys--In conjunction with the five other New England states, the Commonwealth relied heavily upon the 1974 New England Regional Commission Rail-Use Survey to determine the rail users in the state and how vital rail freight service is to their continued operation.

In addition, the Commonwealth has surveyed the directly affected rail users a second, and in some cases, a third time to adequately determine freight rail use, options for use of alternative modes of transportation, potential use of rail, direct and indirect rail-related jobs, jobs that would be lost with the discontinuance of rail services and the economic impact on business if rail service were to cease.

In addition, the surveys requested specific information on traffic flow, commodities and other information which may throw special light on specific consignee needs.

This process continues. Organized meetings with shippers, local officials and other interested parties are held each year on every rail line currently under subsidy. More frequent meetings are held with shippers as special needs arise. Train operations are observed and members of the Executive Office of Transportation and Construction staff frequently ride the subsidized trains.

As additional lines come under study by the various railroads, concentrated efforts are made with local officials and rail users to gather current line-specific data.

Much planning deals with the rest of the rail system. Lightly used branch lines are only a small part of the rail planning effort. Patterns of traffic flows into the Commonwealth are continuously being monitored and analyzed. Changes in the industry structure and the strengths of connections to the south and west of New England are always under study.

Finally, a key component of our current planning process involves the bankruptcy of the Boston & Maine Railroad and the Trustees' efforts at reorganization.

Through the use of those surveys, material compiled by regional planning agencies, ConRail traffic flow information and material compiled from our own Monthly Rail User Reports, we prepared this edition of the State Rail Plan based on revisions of the previous editions of the plan.

The Executive Office of Transportation and Construction is both responsive to, and an initiator of, concerns which affect the welfare of the residents of Massachusetts. Thus, this Office has been holding public area meetings with business and municipal representatives to gauge their reaction to our branchline dilemma. Meetings this year have been held in the following cities and represent all the branch lines in question: Acton, Falmouth, Barnstable, Ware, Rockland and Hyannis.

This Office, working in conjunction with those persons directly connected with the rail problem at the local level, formulated a program for the disposition of each of the branch lines which represented the best compromise between limited state funding and local needs and a wise and justified expenditure of public funds. The results of the decision in respect to each branch line is explained in the pages of Chapter V of this document.

C. Enabling Legislation

On December 31, 1975, the General Court of the Commonwealth enacted legislation entered into Chapter 859 of the General Laws of the Commonwealth as A Comprehensive Transportation Bond Authorization. This legislation authorizes the Executive Office of Transportation to acquire, rehabilitate, subsidize and/or bank rail rights-of-way. Funding to carry

out this authority is to be derived from the sale of bonds in the amounts of \$4.5 million for freight-use branch line rehabilitation and acquisition, \$500,000 to be used to implement and/or continue subsidized operations on abandoned rights-of-way, and \$15 million for passenger transportation purposes.

D. Data Sources

In its decision-making, the EOTC is utilizing information available in the following documents:

Massachusetts Department of Public Works:

Highway location and capacity reports based on Tippetts-Abbott-McCarthy-Stratton engineering reports

Statewide Railroad Right-of-way Study prepared by TAMS for the Massachusetts DPW and the US DOT/Federal Highway Administration updated by EOTC, May 1977

1977 Regional Maps of the Commonwealth

Harbridge House, Inc.:

(Studies prepared for the New England Regional Commission)

The Economic Impact of Rail Service in New England, April 1975

Traffic Volume Projections for 1980: New England Railroads, June 1975

Methodology for Determination of Environmental and Energy Consumption Impacts, November 1974

New England Railroad Traffic Flows Baseline Simulation for 1973

New England Railroad Traffic Flows Baseline Simulation for 1980

Reebie Associates:

New England Freight Traffic Flows, October 1975

Freight Rail User Survey, August 1974

Canadian Transport Commission--Systems Analysis and Research Data Base Branch:

A Study of Amtrak's Effectiveness, November 1974

National Railroad Passenger Corporation--Board of Directors:

Criteria and Procedures for Making Route and Service Decisions

Ccnsad Research Corporation:

USRA Analysis of Community Impacts Resulting from the Loss of Rail Service, February 1975

Executive Office of Transportation and Construction:

Monthly LDL Rail User Report Form (Exhibit A)

United States Railway Association:

Final System Plan, July 1975

US Department of Transportation:

Final Standards, Classification and Designation of Lines of
Class I Railroads in the United States, January 1977

Rail Service in the Midwest and Northeast Region, February 1974

Association of American Railroads--Accounting Division:

Freight Station Accounting Code Directory, April 1974

Commonwealth of Massachusetts--Division of Employment Security:

Employment Review (monthly reports)

Massachusetts Trends (monthly reports)

MCA Engineering Corporation:

(Study prepared for the New England Regional Commission)

Condition of Railroad Track Facilities in New England, March 1975

E. Criteria for Making Priority Decisions Among Various Subsidized Services and Projects

During the months prior to the cessation of Penn Central service on April 1, 1976, the primary decision which had to be made concerned which lines would be subsidized and which would not. The lines were divided in two groups: those lines on which discontinuation of rail service would result in an immediate job loss in the industries served by rail; those where such job loss would not immediately take place because of the existence of some sort of alternative transportation availability. A decision was made to subsidize the six lines on which job loss would otherwise exist. A decision was made to subsidize the other seven lines only if a shipper, the municipality or some other party came forward and offered to fund a significant portion of the subsidy. No such offers were forthcoming and the service ceased on the seven lines. Since that time, both the job loss situation and the willingness of the shipper to subsidize have changed on Line 33, so that line is now joining the other six subsidized lines.

Early decisions concerning acquisition of lines were also relatively simple. Lines not under subsidy were threatened with immediate physical abandonment and disposal unless an offer to purchase was made. Since all of the non-subsidized lines had at least the strong potential for future rail service, the Commonwealth offered to purchase them from the Penn Central if the lines were not already owned by a state agency. Lines under subsidy were given second priority because they were not threatened by immediate physical abandonment.

Specific ranking within the above-described general categories was judgmental, based on the following primary factors:

- a. Costs: Based largely on the figures developed by USRA in preparing the Final System Plan, inflated to cover inflation, and modified as appropriate to suit changed conditions;
- b. Economic Impact: Primarily the estimated job loss resulting from rail service discontinuance (information was requested of each rail user);
- c. Growth in Rail Use: Reasonably tangible evidence that continuation of rail service would result in growth in rail traffic;
- d. Industrial Development Potential: The availability of land and buildings for future rail users and related local plans;
- e. Passenger Service: The likelihood of future rail passenger service;
- f. Highway Capacity Constraints: In all cases, the neighboring highways were found to have the theoretical capacity to carry the discontinued rail freight in equivalent truckloads; however, in several cases this additional truck traffic was most undesirable;

- g. Environmental Impact: Impact on the local environment due to cessation of service and implementation of alternate transportation.

Now, evaluation of lines for priority treatment has become more involved. The primary factors must be evaluated in greater depth. Rehabilitation projects must be evaluated against each other and against other projects such as acquisition. Also, the investment in facilities must be weighed against resultant savings in costs of operation. The ability to handle additional traffic which can reduce overall subsidy becomes very important in areas where such additional traffic can be generated.

The same primary criteria are used:

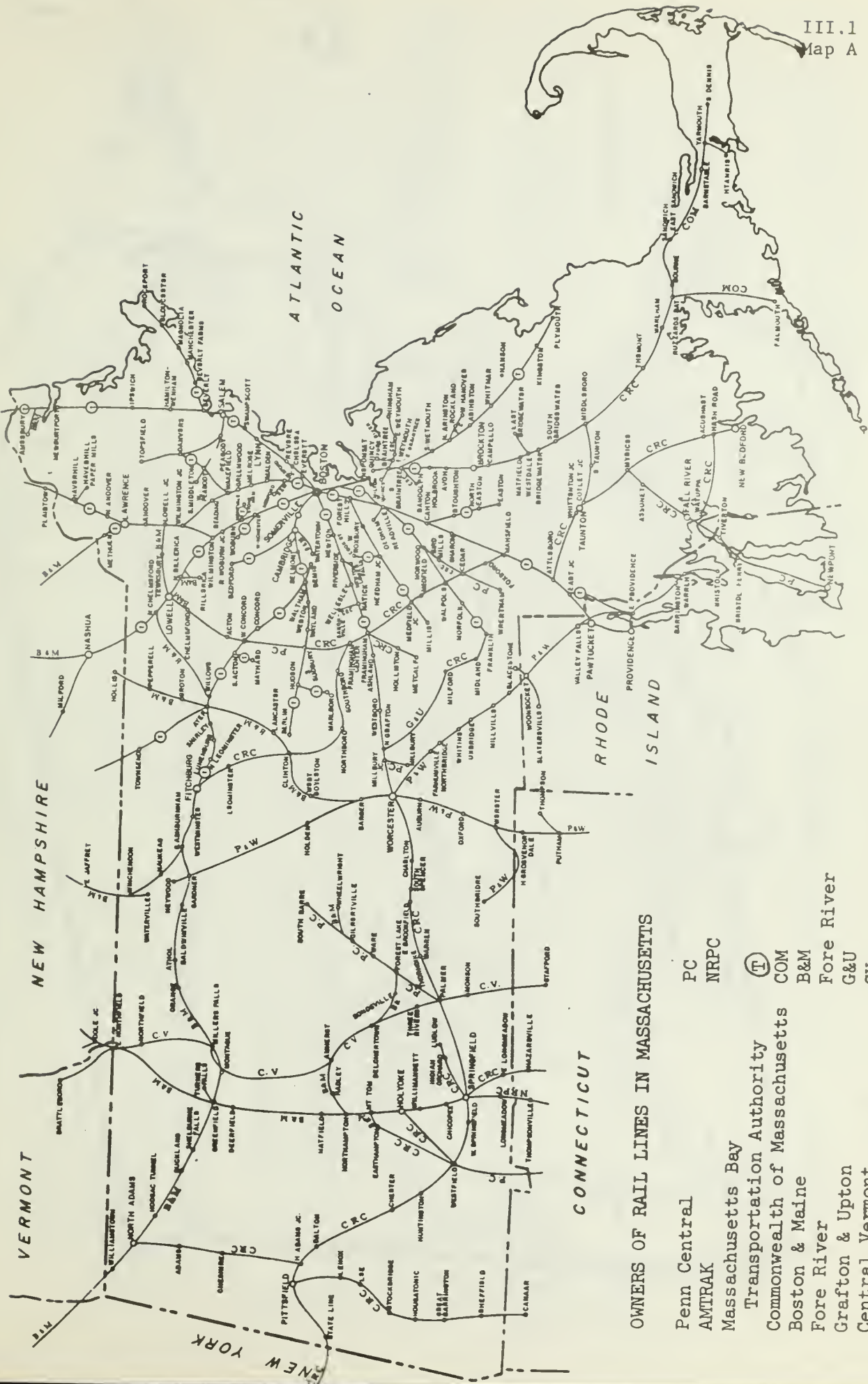
- a. Costs: In no case will a project or a subsidized operation be justified if its cost exceeds the benefits (direct and indirect) as defined in the Regional Rail Reorganization Act of 1973. All projects which satisfy this criterion are evaluated as to costs and benefits. Projects with higher benefit/cost ratios are given higher priority than those with lower benefit/cost ratios. In cases where the direct benefits (usually savings in future subsidized operations) exceed costs, special priority is usually given because these projects can result in increased availability of future funds for other projects. Because no future benefits--direct or indirect--can be predicted with certainty, some judgment is always exercised when weighing direct benefits against indirect benefits and when predicting the probability that benefits will actually be realized.
- b. Economic Impact: Economic impact takes several forms. An immediately identifiable economic impact is job loss resulting from loss of service. Where job loss can be predicted, it is relatively easy to calculate lost payroll, lost secondary jobs, income tax loss, sales tax loss, welfare costs and unemployment benefit costs. Likewise, when job creation can be realistically predicted as the result of a project, benefits from the same items can be calculated. In many cases, however, neither job loss nor job creation can be predicted with certainty. Accordingly, it is always necessary to exercise judgment when considering the probability of any economic impact; the current unemployment situation in the given area must also be considered. (In general, costs and economic impact are the most important criteria considered.)
- c. Growth in Rail Use: If growth in rail use can be reasonably expected, the resultant reduction in subsidy cost is a direct benefit that should be considered. More importantly, very high priority must be given to projects which will create the ability to handle additional traffic in situations where such additional traffic can be reasonably expected.

- d. Industrial Development Potential: Consideration must be given to the availability of land and buildings appropriate for rail-dependent industrial development. Certainly preservation of rights-of-way to service these areas is justifiable. However, projects requiring higher investment cannot be justified by industrial development potential alone unless there is evidence or assurance that such development is underway or reasonably anticipated. Often, the willingness of the industrial developer to share the risk of initial construction may be needed to provide such assurance. Also, the need for industrial development to the local economy must be considered.
- e. Passenger Service: The likelihood of future rail passenger service should be considered in all cases. However, no decisions to expend freight subsidy funds should be based on passenger considerations to the detriment of freight projects elsewhere unless some non-freight funding is also available.
- f. Highway Capacity Constraints: Problems created on highways due to diverted traffic should be evaluated and considered in priority decisions when impacts are significant.
- g. Environmental Impact: Marked differences in environmental impact must be considered while evaluating alternative projects.

All of the above criteria are quantifiable to some degree. Each requires the use of a significant amount of judgment. It is impossible to establish formulae which would allow calculations to weigh these factors against one another. In the final analysis non-quantifiable judgment is needed in every case to make the optimum decisions.

III. MAPS ILLUSTRATING CLASSIFICATION OF THE RAIL SYSTEM IN MASSACHUSETTS

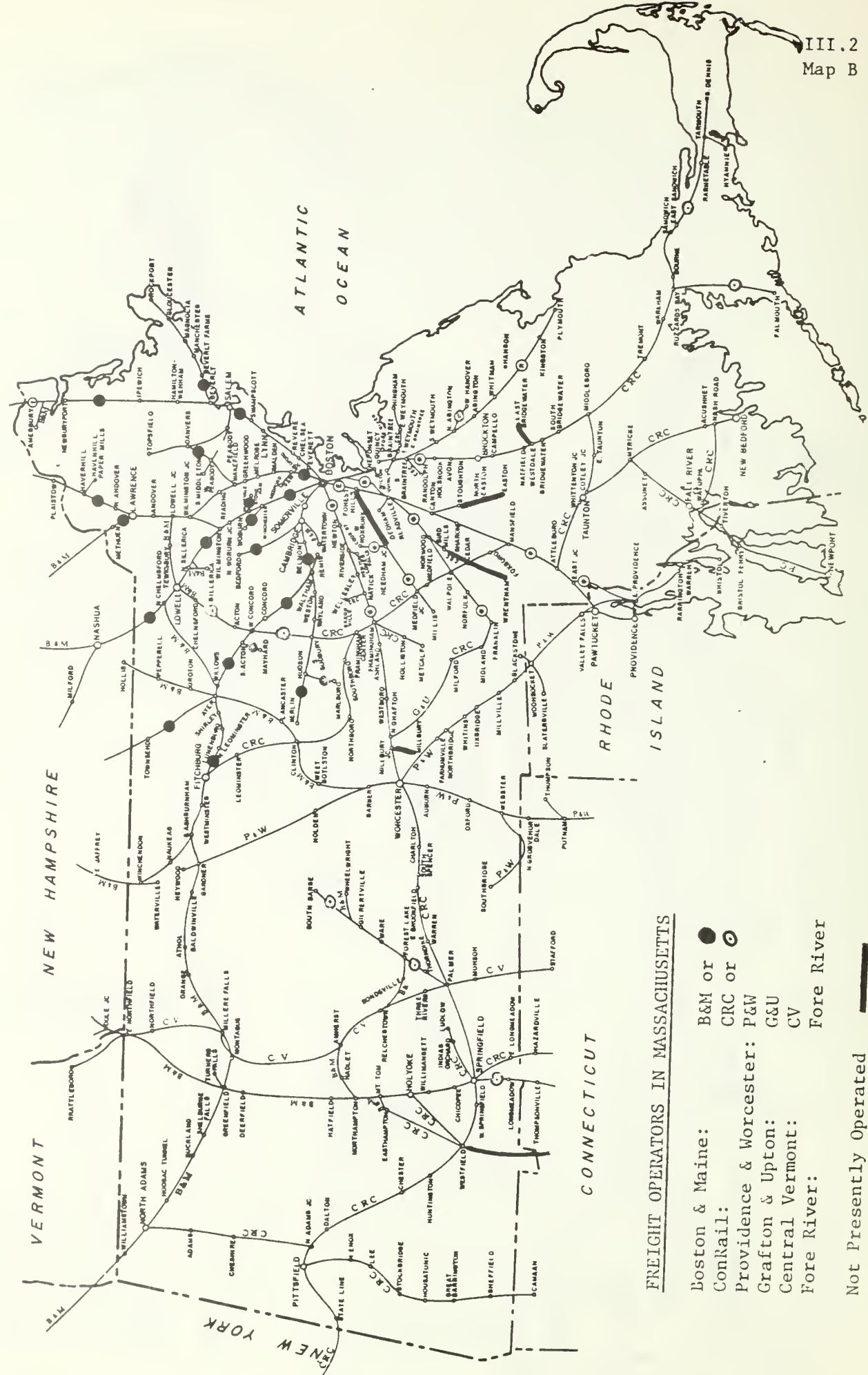
This chapter consists of maps detailing various aspects of the rail system in Massachusetts as required by 49 CFR 266.9(d)(2, 3).



III.1
Map A

OWNERS OF RAIL LINES IN MASSACHUSETTS

- Penn Central
- AMTRAK
- Massachusetts Bay Transportation Authority
- Commonwealth of Massachusetts
- Boston & Maine
- Fore River
- Grafton & Upton
- Central Vermont
- Providence & Worcester
- ConRail
- PC
- NRPC
- (T)
- COM
- B&M
- Fore River
- G&U
- CV
- P&W
- CRC

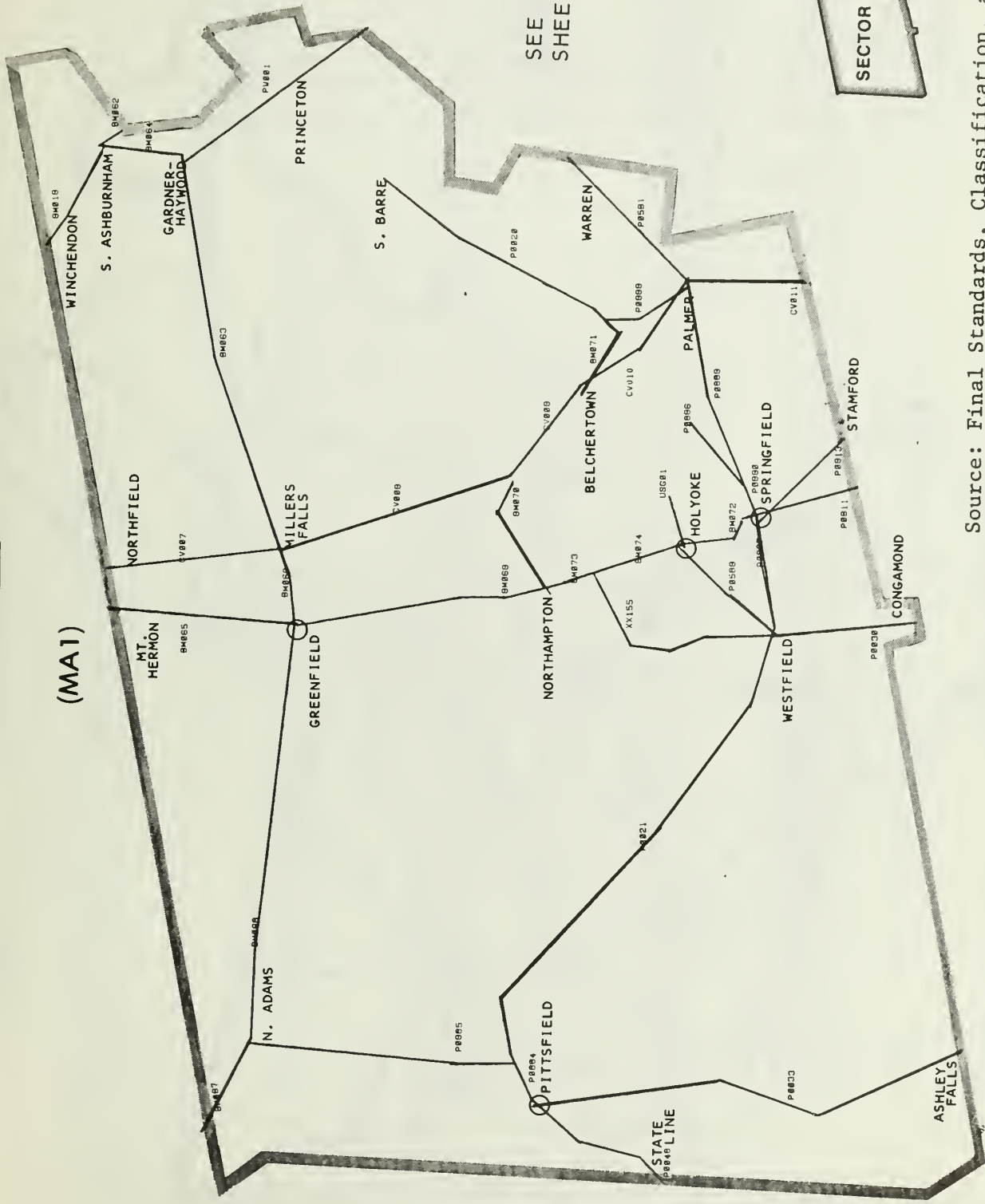


FREIGHT OPERATORS IN MASSACHUSETTS

- Boston & Maine: B&M or ●
- ConRail: CRC or ○
- Providence & Worcester: P&W
- Grafton & Upton: G&U
- Central Vermont: CV
- Fore River: Fore River
- Not Presently Operated: —

TRAFFIC DENSITY

(MA1)



SEE FOLLOWING LINE CODE SHEET FOR EXPLANATION

MASSACHUSETTS

SECTOR 1

SECTOR 2

III.3
Map C.1

Source: Final Standards, Classification, and Designation of Lines of Class I Railroads in the United States, U.S. Dept. of Transportation, January 19, 1977

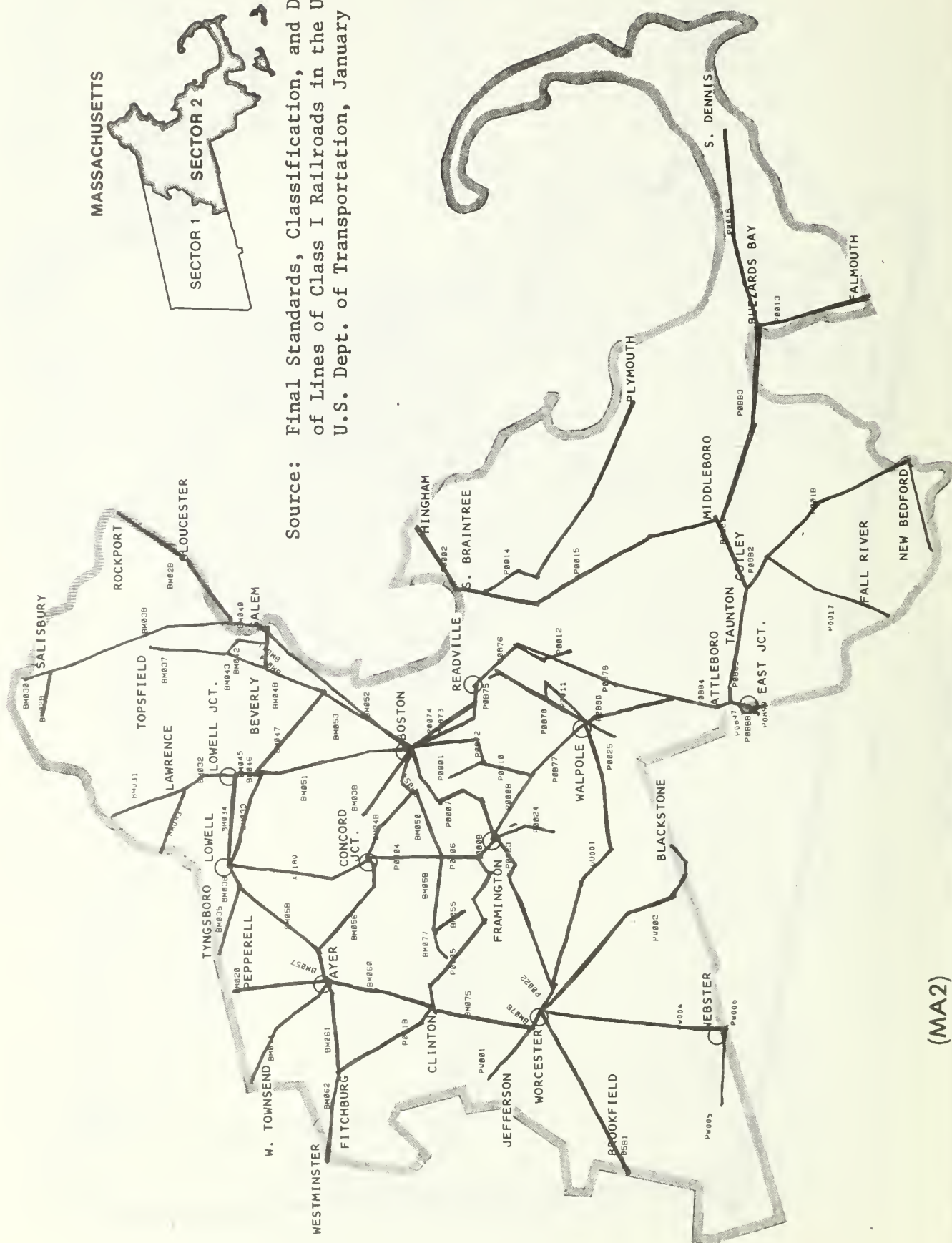
TRAFFIC DENSITY

MASSACHUSETTS

SECTOR 1 SECTOR 2

Source: Final Standards, Classification, and Designation of Lines of Class I Railroads in the United States, U.S. Dept. of Transportation, January 19, 1977

III.4
Map C.2



(MA2)

TRAFFIC DENSITY BY LINE SEGMENT

III. 5

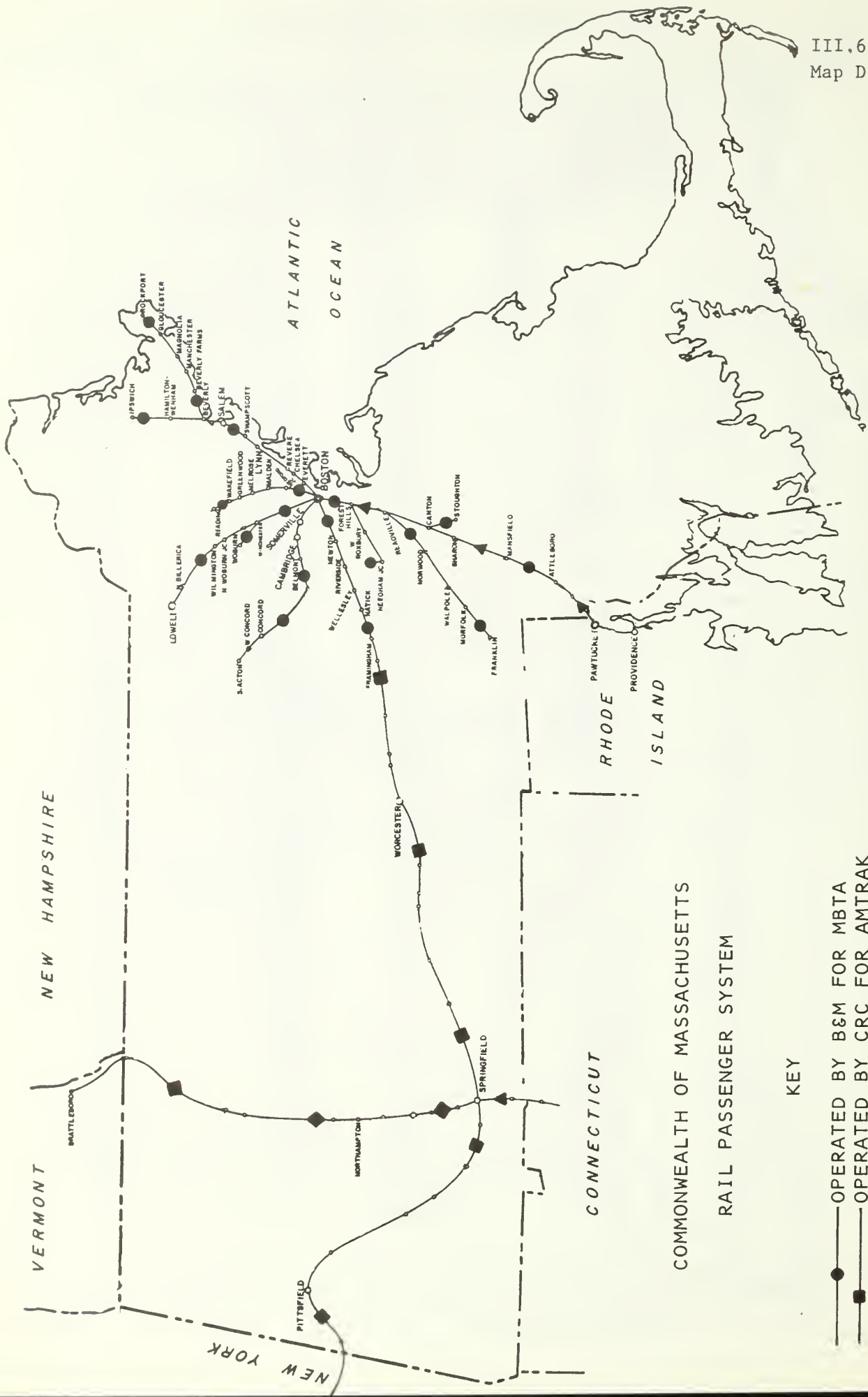
Map C (key)

TRAFFIC DENSITY CODE

<u>CODE</u>	<u>VALUE (IN MILLIONS OF ANNUAL GROSS TONS)</u>
1	LESS THAN 1
2	AT LEAST 1 BUT LESS THAN 5
3	AT LEAST 5 BUT LESS THAN 10
4	AT LEAST 10 BUT LESS THAN 20
5	AT LEAST 20 BUT LESS THAN 30
6	30 AND OVER

<u>LINE</u> <u>IDENT</u> <u>CODE</u>	<u>TRAFFIC</u> <u>DENSITY</u> <u>CODE</u>	<u>MAP</u> <u>SECTOR</u> <u>CODE</u>	<u>LINE</u> <u>IDENT</u> <u>CODE</u>	<u>TRAFFIC</u> <u>DENSITY</u> <u>CODE</u>	<u>MAP</u> <u>SECTOR</u> <u>CODE</u>	<u>LINE</u> <u>IDENT</u> <u>CODE</u>	<u>TRAFFIC</u> <u>DENSITY</u> <u>CODE</u>	<u>MAP</u> <u>SECTOR</u> <u>CODE</u>
P0001	1	MA2	P0883	1	MA2	BM044	1	MA2
P0002	2	MA2	P0884	6	MA1	BM045	2	MA2
P0004	1	MA2	P0886	1	MA1	BM046	2	MA2
P0005	2	MA2	P0887	6	MA1	BM047	1	MA2
P0006	1	MA2	P0888	1	MA1	BM048	1	MA2
P0007	5	MA2	P0889	5	MA1	BM049	3	MA2
P0008	2	MA2	P0890	5	MA1	BM050	1	MA2
P0009	3	MA2	P0894	3	MA2	BM051	2	MA2
P0010	2	MA2	P0895	2	MA2	BM052	2	MA2
P0011	1	MA2	P0897	3	MA2	BM053	1	MA2
P0012	3	MA2	P0899	-	MA2	BM054	3	MA2
P0013	1	MA2	PW001	-	MA1, 2	BM055	1	MA2
P0014	1	MA2	PW002	1	MA2	BM056	3	MA2
P0015	2	MA2	PW004	1	MA2	BM057	5	MA2
P0016	1	MA2	PW005	1	MA2	BM058	5	MA2
P0017	1	MA2	CV007	2	MA1	BM059	1	MA2
P0018	2	MA2	CV008	2	MA1	BM060	2	MA2
P0019	2	MA2	CV009	2	MA1	BM061	5	MA2
P0020	1	MA1	CV010	2	MA1	BM062	5	MA1, 2
P0021	6	MA1	CV011	2	MA1	BM063	5	MA1
P0022	5	MA2	BM019	1	MA1	BM064	5	MA1
P0023	5	MA2	BM020	1	MA2	BM065	3	MA1
P0024	1	MA2	BM028	1	MA2	BM066	5	MA1
P0025	1	MA2	BM029	1	MA2	BM067	5	MA1
P0048	6	MA1	BM030	1	MA2	BM068	5	MA1
P0589	1	MA1	BM031	5	MA2	BM069	3	MA1
P0591	5	MA1, 2	BM032	5	MA2	BM070	1	MA1
P0872	1	MA2	BM033	2	MA2	BM071	1	MA1
P0873	1	MA2	BM034	5	MA2	BM072	3	MA1
P0874	2	MA2	BM035	2	MA2	BM073	3	MA1
P0875	1	MA2	BM036	5	MA2	BM074	3	MA1
P0876	1	MA2	BM037	1	MA2	BM075	2	MA2
P0877	3	MA2	BM038	1	MA2	BM076	2	MA2
P0878	1	MA2	BM039	1	MA2	BM077	1	MA2
P0879	1	MA2	BM040	1	MA2	GU001	2	MA2
P0880	3	MA2	BM041	1	MA2	XX155	1	MA1
P0881	2	MA2	BM042	1	MA2	XX180	1	MA2
P0882	2	MA2	BM043	1	MA2			

SOURCE: FINAL STANDARDS, CLASSIFICATION, AND DESIGNATION OF LINES OF CLASS I RAILROADS IN THE UNITED STATES, U.S. DEPT. OF TRANSPORTATION, JANUARY 19, 1977



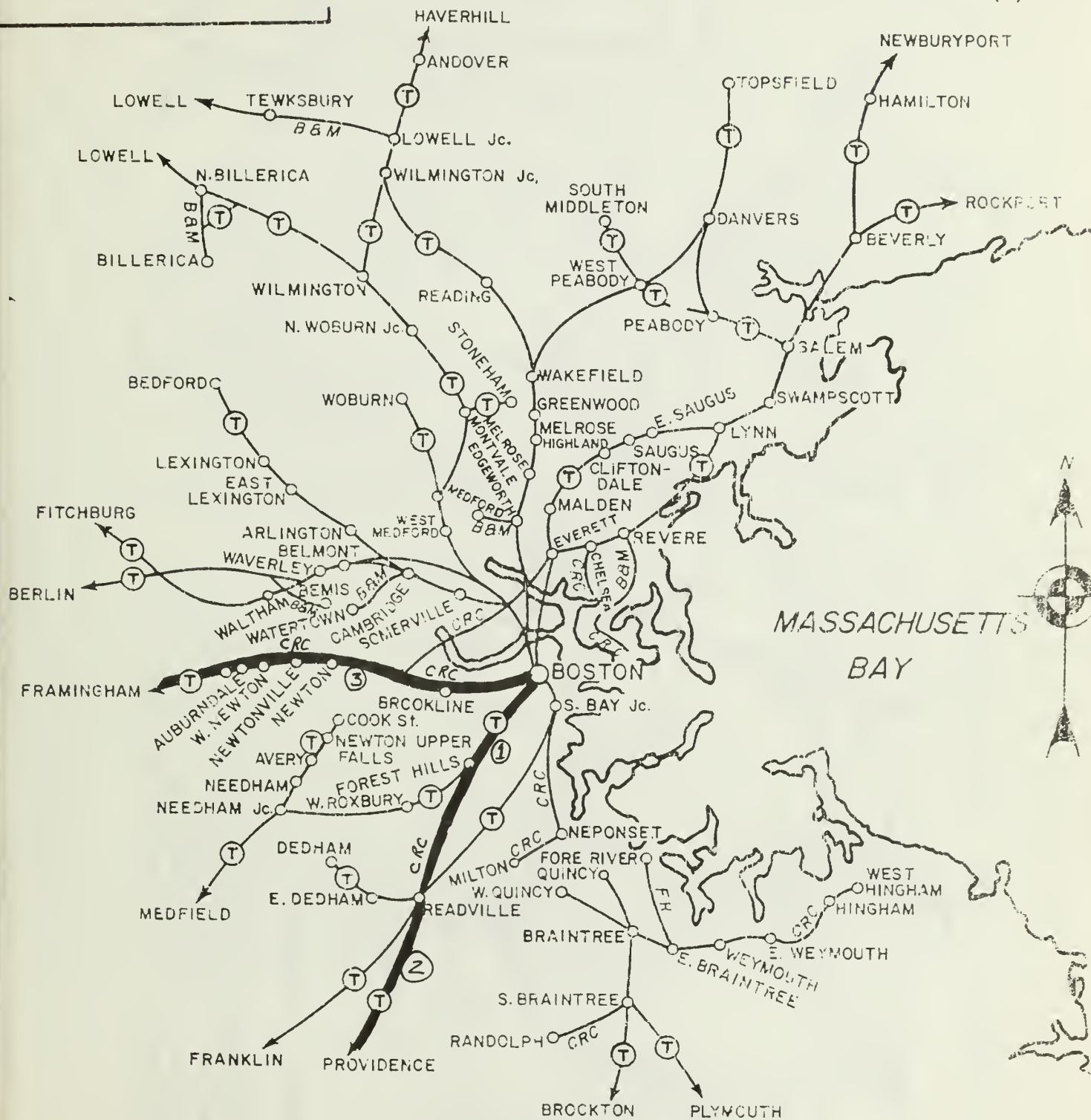
KEY

- OPERATED BY B&M FOR MBTA
- OPERATED BY CRC FOR AMTRAK
- ◆— OPERATED BY B&M FOR AMTRAK
- ▲— OPERATED BY AMTRAK FOR AMTRAK

Through and Local Clearances

1. Readville to Boston Freight Terminal
2. Readville to Providence, R.I.
3. Framingham to Beacon Park

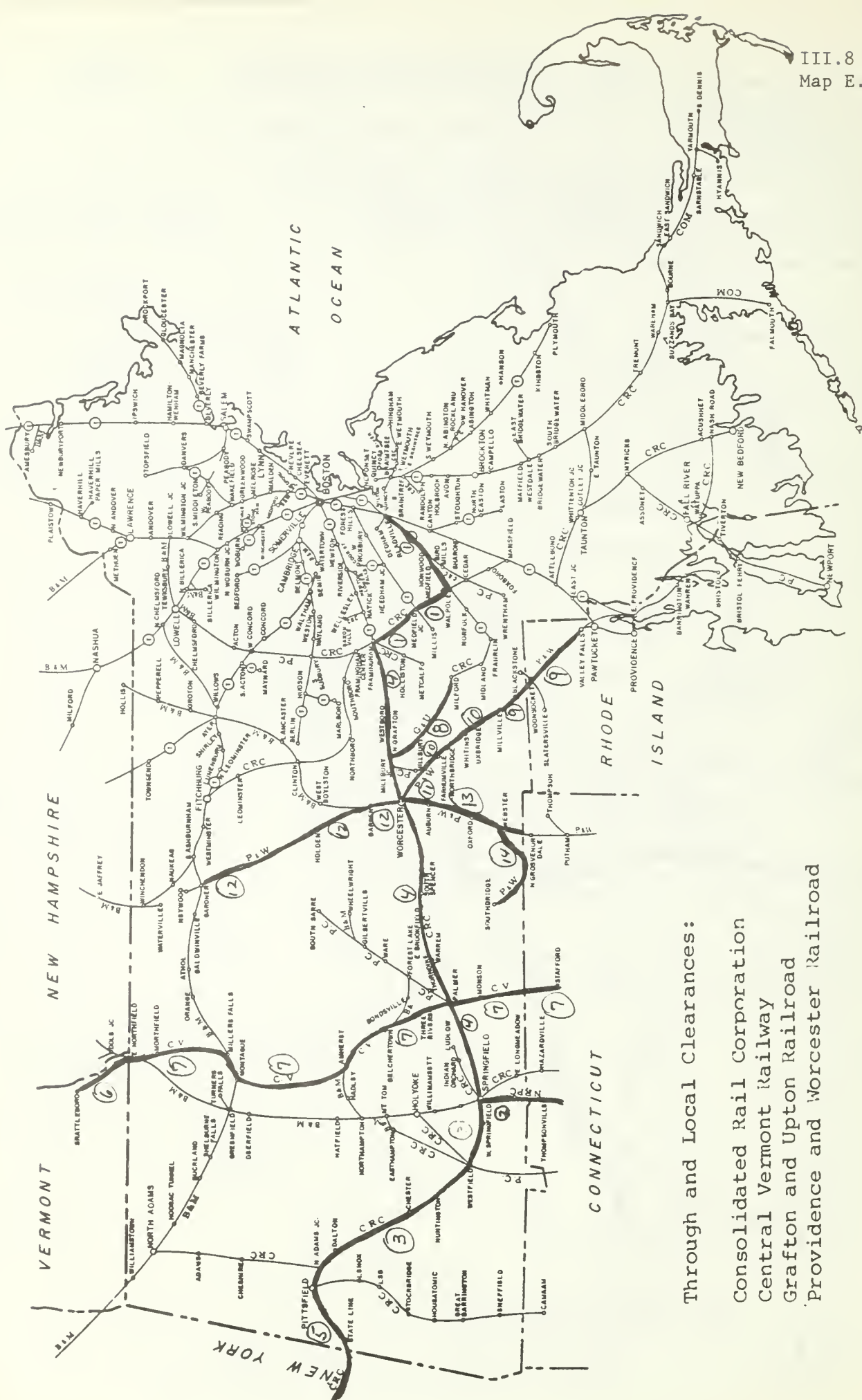
16' H x 9'6" W (1)*
16'6" H x 8'8" W (1),* (2)*
16'6" H x 8'8" W (1)*



*(1) Cannot handle plate "F" cars

* (2) CRC has trackage rights over Amtrak Northeast Corridor

BOSTON and VICINITY



Through and Local Clearances:

Consolidated Rail Corporation
Central Vermont Railway

Grafton and Upton Railroad

Providence and Worcester Railroad

Consolidated Rail Corporation

Through and Local Clearances

1. Framingham to Readville	17'6" H x 11'0" W (1)*
2. Springfield to New Haven, Conn.	17'6" H x 11'0" W (2)*
3. Springfield to Pittsfield	17'6" H x 7'0" W
4. Springfield to Framingham	17'6" H x 11'0" W
5. Selkirk, N.Y. to Pittsfield	17'9" H x 4'0" W

Central Vermont Railway

Through and Local Clearances

6. Brattleboro, Vt. to East Northfield, Mass.	16'6" H x 11'0" W
7. East Northfield, MA. to Yantic, Conn.	15'9" H x 11'0" W

Grafton and Upton

8. No restriction in width, maximum height	19'5 3/4"
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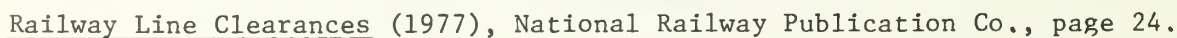
Providence and Worcester

Through and Local Clearances

9. Valley Falls, R.I. and Millville, Mass.	17'0" H x 3'0" W
10. Millville to Millbury	17'3" H x 13'0" W
11. Millbury to Worcester	18'6" H x 2'0" W
12. Worcester to Gardner	17'3" H x 11'0" W
13. Worcester to Webster	17'5" H x 13'0" W
14. Southbridge to Webster	15'10" H x 13'0" W

*(1) Cannot handle plate "F" cars

*(2) CRC has trackage rights over Amtrak Northeast Corridor



CLEARANCE AND WEIGHT LIMITS.

III.11

Map E.3(key)

BOSTON AND MAINE CORPORATION—Continued.

THROUGH AND LOCAL CLEARANCES.

Note A

Heights above Top of Rail.																							Heights above Top of Rail.
	No. 1 Width	No. 2 Width	No. 3 Width	No. 4 Width	No. 5 Width	No. 6 Width	No. 7 Width	No. 8 Width	No. 9 Width	No. 10 Width	No. 11 Width	No. 12 Width	No. 13 Width	No. 14 Width	No. 15 Width	No. 16 Width	No. 17 Width	No. 18 Width	No. 19 Width	No. 20 Width	No. 21 Width	No. 22 Width	
ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.
18 0	11 0	1 0	--	5 0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	18 0
17 9	"	7 0	6 0	6 3	11 0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	17 9
17 6	"	8 6	10 0	8 10	"	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	17 6
17 3	"	10 0	11 0	9 6	9 9	--	--	--	--	--	11 0	--	--	--	--	--	--	--	--	--	--	--	17 3
17 0	"	11 0	"	10 0	10 4	--	7 4	9 0	11 0	10 0	--	--	--	--	--	--	--	--	--	11 0	--	--	17 0
16 9	"	"	"	10 6	10 10	"	7 10	9 6	"	10 0	"	11 0	--	--	--	--	--	--	--	"	"	"	16 9
16 6	"	"	"	11 0	11 0	"	8 4	10 0	"	11 0	"	"	"	4 0	"	"	"	"	"	"	"	"	16 6
16 5	"	"	"	"	"	"	8 6	10 0	"	"	"	"	"	4 4	"	"	"	"	"	"	"	"	16 5
16 4	"	"	"	"	"	"	8 6	10 0	"	"	"	"	"	4 8	11 0	"	"	"	"	"	"	"	16 4
16 3	"	"	"	"	"	"	8 9	10 6	"	"	"	"	"	5 0	"	11 0	9 0	"	"	"	"	"	16 3
16 2	"	"	"	"	"	"	8 11	10 6	"	"	"	"	"	5 4	"	"	11 7	0 11	0	"	"	"	16 2
16 0	"	"	"	"	"	"	9 3	11 0	"	"	"	"	8 6	6 0	"	"	--	11 0	11 0	"	--	7 0	16 0
15 11	"	"	"	"	"	"	9 5	"	"	"	"	"	9 4	6 3	"	"	6 0	"	"	"	"	7 10	15 11
15 9	"	"	"	"	"	"	9 9	"	"	"	"	"	11 0	6 9	"	"	6 9	"	"	"	8 6	10 0	15 9
15 8	"	"	"	"	"	"	9 11	"	"	"	"	"	"	7 0	"	"	7 0	"	"	"	11 0	10 3	15 8
15 6	"	"	"	"	"	"	10 3	"	"	"	"	"	"	7 6	"	"	7 6	"	"	"	11 0	10 10	15 6
15 3	"	"	"	"	"	"	10 9	"	"	"	"	"	"	8 3	"	"	8 3	"	"	"	"	11 0	15 3
15 0	"	"	"	"	"	"	11 0	"	"	"	"	"	"	8 10	"	"	8 10	"	"	"	"	"	15 0
14 9	"	"	"	"	"	"	"	"	"	"	"	"	"	9 8	"	"	9 3	"	"	"	"	"	14 9
14 6	"	"	"	"	"	"	"	"	"	"	"	"	"	10 2	"	"	10 0	"	"	"	"	"	14 6
14 3	"	"	"	"	"	"	"	"	"	"	"	"	"	10 6	"	"	10 0	"	"	"	"	"	14 3
14 0	"	"	"	"	"	"	"	"	"	"	"	"	"	10 8	"	"	10 6	"	"	"	"	"	14 0
13 9	"	"	"	"	"	"	"	"	"	"	"	"	"	10 8	"	"	10 7	"	"	"	"	"	13 9
13 6	"	"	"	"	"	"	"	"	"	"	"	"	"	11 0	"	"	11 0	"	"	"	"	"	13 6
5 0	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	5 0
4 0	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	4 0
3 6	11 0	0 11	0	"	"	11 0	"	"	"	11 0	"	"	11 0	"	"	11 0	0 11	0	"	11 0	"	11 0	3 6
3 0	10 6	10 6	11 0	0 11	0	"	10 2	11 0	0 11	0 10	6 11	0	10 6	11 0	10 4	"	11 0	10 10	10 10	6 11	0 10	2	3 0
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2 0	10 4	10 2	"	10 6	11 0	9 8	"	10 2	10 6	10 0	10 2	10 8	10 2	11 0	"	"	"	10 6	10 0	"	"	"	2 0
1 6	10 0	10 0	"	10 0	10 0	9 6	10 9	10 0	2 10	3	"	10 2	10 0	9 6	10 10	10 10	"	10 2	10 0	11 0	10 0	10 6	1 6
1 0	9 6	9 6	10 9	9 8	9 4	9 4	10 0	9 6	10 0	10 0	9 6	10 0	9 10	9 2	10 6	10 6	10 0	2 9	8 10	0 10	0 10	0	1 0
0 6	9 0	9 2	9 4	9 6	9 2	8 10	9 4	9 2	9 0	9 0	9 2	9 2	9 2	8 8	9 8	9 8	9 0	9 4	9 4	10 0	9 2	9 9	0 6
0 3	9 0	7 2	9 4	9 6	9 2	8 8	8 9	7 2	8 8	8 9	7 2	9 2	7 2	7 2	2 9	8 9	8 9	9 0	4 9	0 9	9 2	9 9	0 3

THROUGH AND LOCAL CLEARANCES—Continued.

Note A

Heights above Top of Rail.																							Heights above Top of Rail.
	No. 23 Width	No. 24 Width	No. 25 Width	No. 26 Width	No. 27 Width	No. 28 Width	No. 29 Width	No. 30 Width	No. 31 Width	No. 32 Width	No. 33 Width	No. 34 Width	No. 35 Width	No. 36 Width	No. 37 Width	No. 38 Width	No. 39 Width	No. 40 Width	No. 41 Width	No. 42 Width	No. 43 Width	No. 44 Width	
ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.
18 0																							18 0
17 9																							17 9
17 6																							17 6
17 2																							17 2
17 0																							17 0
16 9																							16 9
16 6																							16 6
16 5																							16 5
16 4																							16 4
16 3																							16 3
16 2																							16 2
16 0																							16 0
15 11																							15 11
15 9																							15 9
15 8																							15 8
15 6																							15 6
15 3																							15 3
15 0																							15 0
14 9																							14 9
14 6																							14 6
14 3																							14 3
14 0																							14 0
13 9																							13 9
13 6																							13 6
5 0																							5 0
4 0																							4 0
3 6	11 0	"	11 0	"	11 0	10 6	11 0	"	"	"	"	11 0	"	11 0	0 11	0 11	0	"	11 0	"	11 0	"	3 6
3 0	10 7	11 0	10 6	11 0	10 6	10 6	10 6	11 0	"	"	"	10 9	11 0	10 6	10 4	10 2	"	10 7	"	10 6	"	"	3 0
2 6	10 5	10 6	10 4	10 6	10 6	10 0	10 0	4 10	9	"	"	11 0	"	10 6	10 4	2 10	2 11	0 10	6	"	10 4	11 0	2 6
2 0	10 4	"	10 2	10 6	10 2	"	10 4	10 9	"	"	"	10 8	"	10 6	10 2	2 10	2 10	0 10	6	11 0	10 0	9 10	2 0
1 6	10 4	10 6	10 0	10 2	10 2	10 0	10 0	2 10	6	"	11 0	10 8	"	10 2	10 0	0 10	0 10	"	10 6	10 0	0 10	6 10	1 6
1 0	9 6	9 10	9 6	9 6	9 6	9 0	8 9	6 9	6	11 0	10 6	9 4	10 9	10 2	9 9	6 9	8 10	6 9	10 10	0 9	6 10	6 10	1 0
0 6	8 8	9 0	9 2	"	9 2	9 4	8 8	8 9	6	10 0	8 8	8 9	9 6	9 6	9 2	9 2	9 4	9 8	9 9	0 9	2 9	6 9	0 6
0 3	8 8	7 2	7 2	9 6	7 2	9 0	8 8	8 9	4	9 6	8 8	8 6	9 6	9 6	7 2	7 2	9 0	4 7	2 9	0 7	2 9	4 9	0 3

Note A—Maximum gross weight of cars and loading, clearances and maximum combined center of gravity shown herein may be exceeded on some lines by special authority from Supt. Freight Transportation, North Billerica, Mass. 01862 — Phone: 1-(617)-667-2968 — Telex 940622.

HANSCOM FIELD

FORT DEVENS

NEW HAMPSHIRE

VERMONT

NEW YORK

ATLANTIC

OCEAN

S. WEYMOUTH NAVAL
AIR STATION

CONNECTICUT

WESTOVER AIR
FORCE BASE

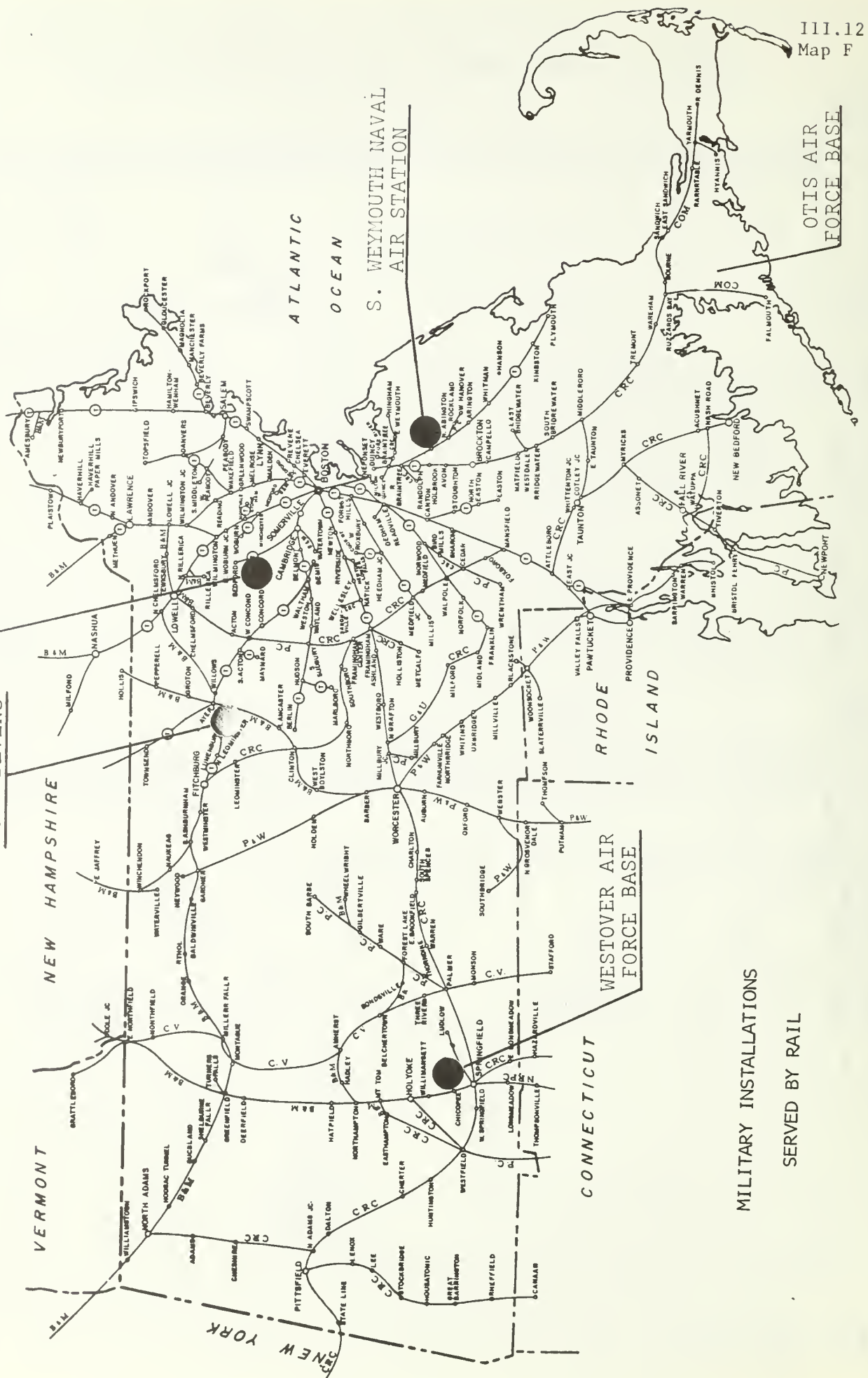
RHODE

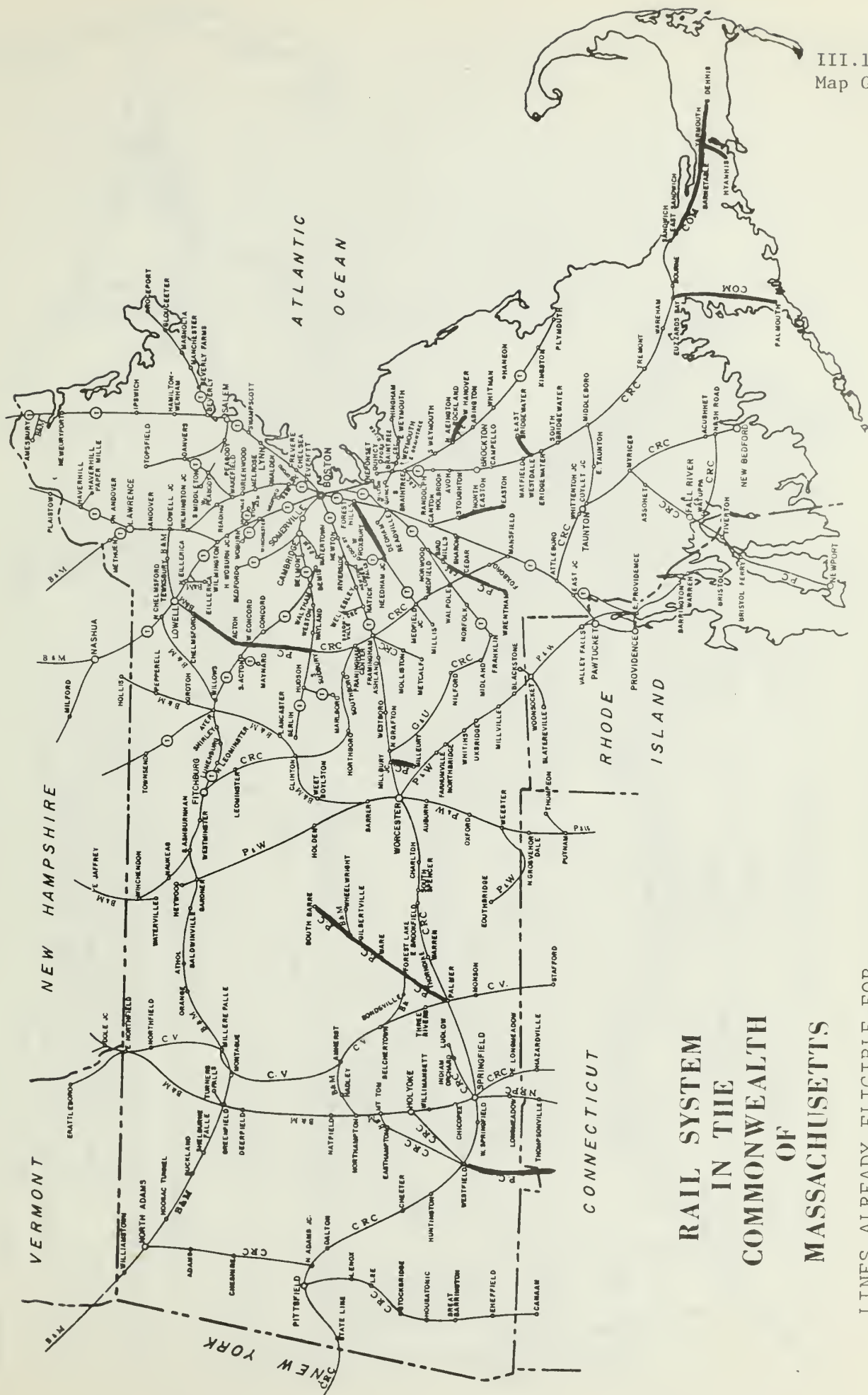
ISLAND

OTIS AIR
FORCE BASE

MILITARY INSTALLATIONS

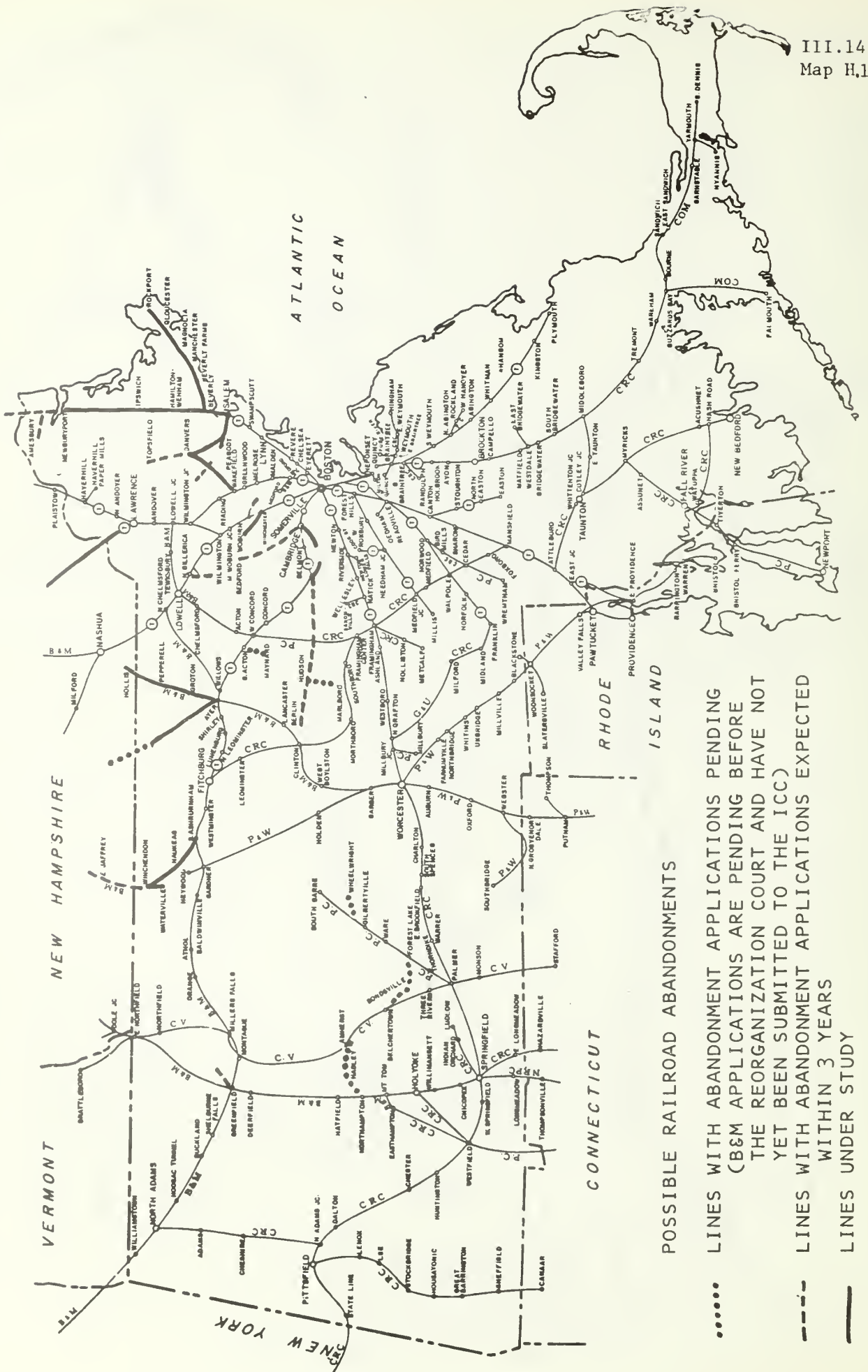
SERVED BY RAIL





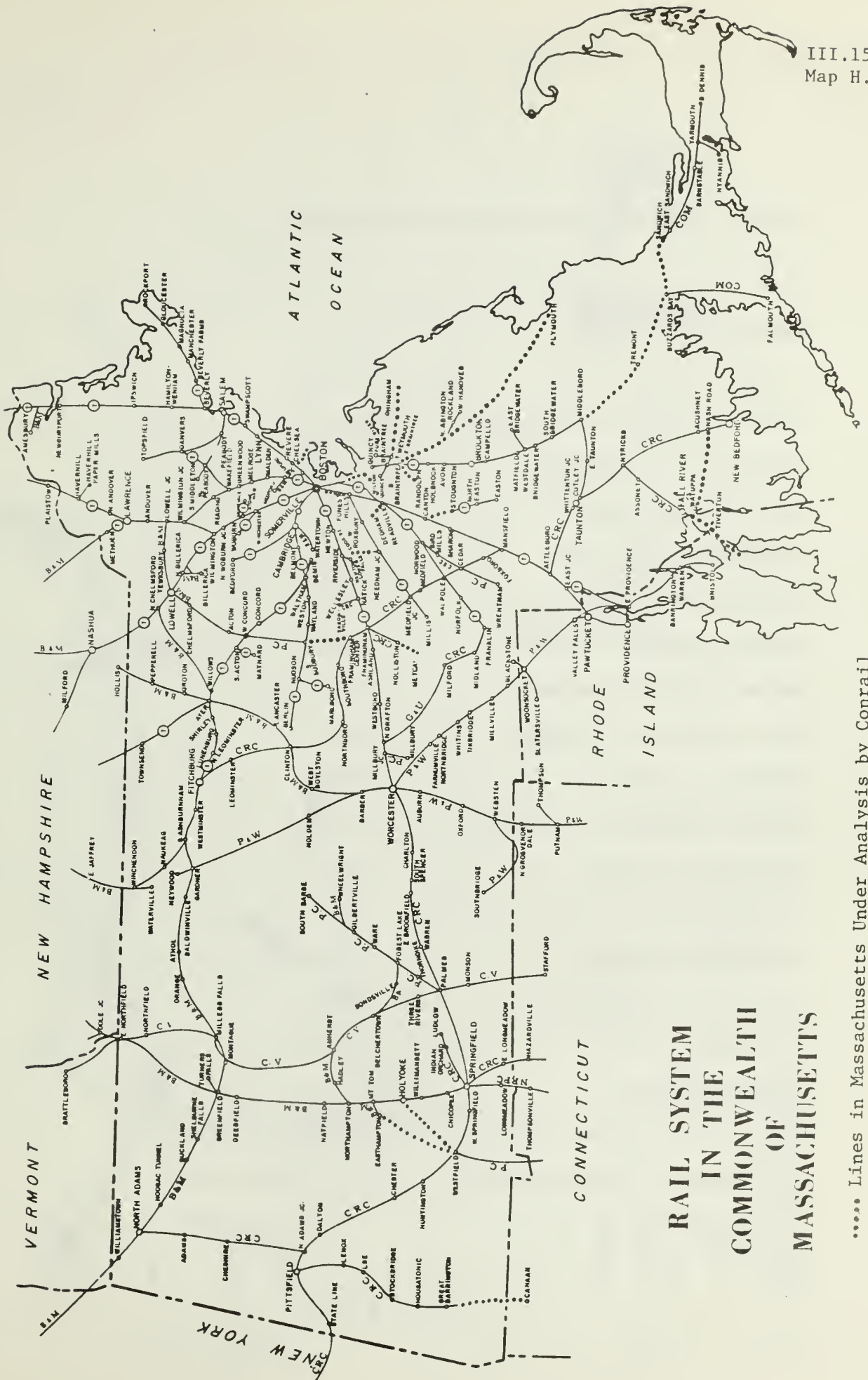
RAIL SYSTEM IN THE COMMONWEALTH OF MASSACHUSETTS

LINES ALREADY ELIGIBLE FOR
TITLE IV ASSISTANCE



POSSIBLE RAILROAD ABANDONMENTS

- LINES WITH ABANDONMENT APPLICATIONS PENDING
(B&M APPLICATIONS ARE PENDING BEFORE
THE REORGANIZATION COURT AND HAVE NOT
YET BEEN SUBMITTED TO THE ICC)
- LINES WITH ABANDONMENT APPLICATIONS EXPECTED
WITHIN 3 YEARS
- LINES UNDER STUDY



RAIL SYSTEM IN THE COMMONWEALTH OF MASSACHUSETTS

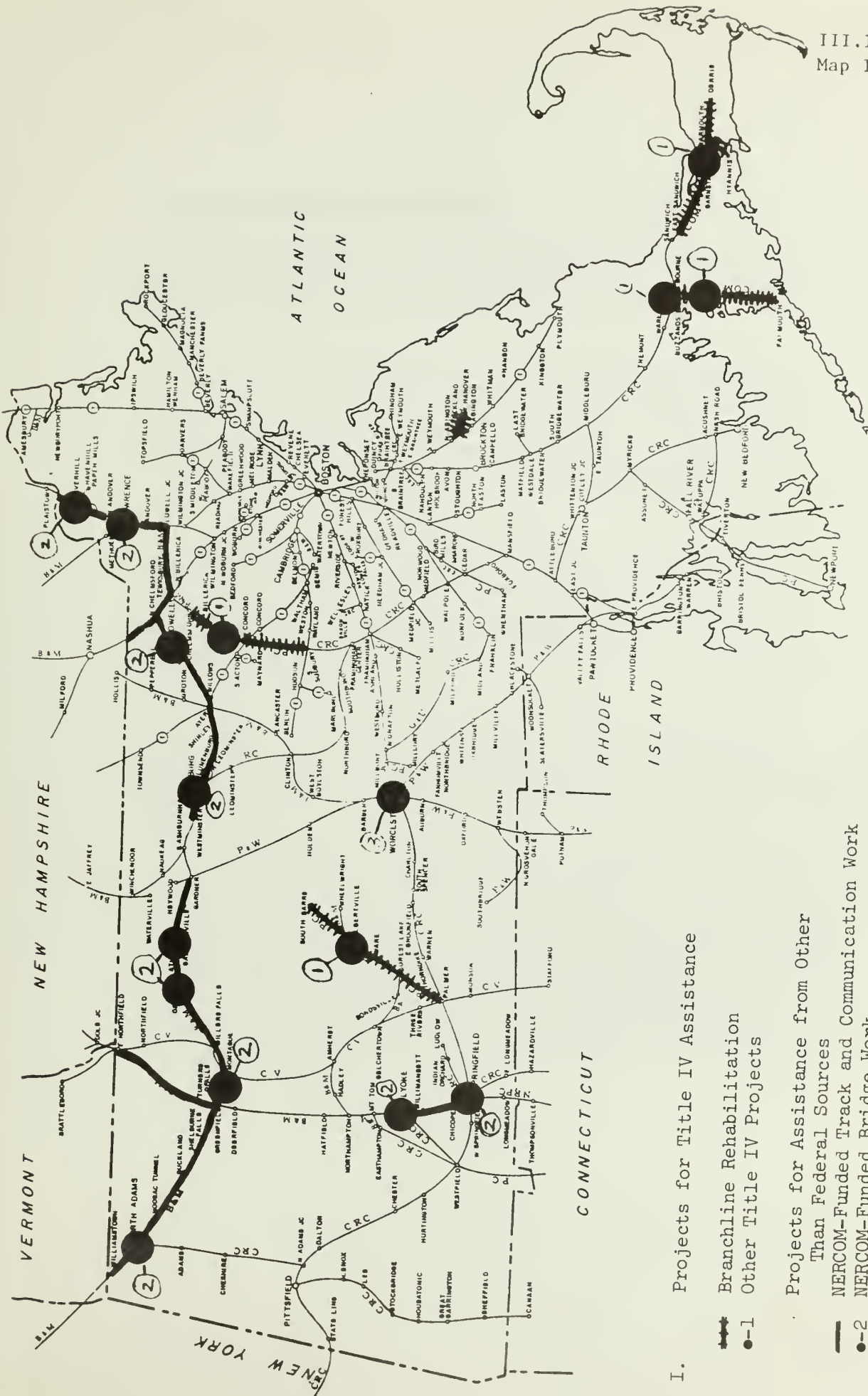
..... Lines in Massachusetts Under Analysis by Conrail

LINES IN MASSACHUSETTS UNDER ANALYSIS BY CONRAIL

Chelsea to East Boston	2.0 miles
Holliston to Metcalfs	1.7 miles
Tremont to End	2.3 miles
Canton Junction to Stoughton	4.4 miles
Buzzards Bay to Sandwich	7.5 miles
Chick to Forest Hills	3.3 miles
Needham Heights to End	2.5 miles
Alden to Buzzards Bay	19.8 miles
Harrison Square to Milton	4.5 miles
Weymouth to West Hingham	4.5 miles
South Braintree to Plymouth	25.4 miles
Readville to Dedham	2.1 miles
Braintree Highlands to Randolph	2.5 miles
Nash Road to Watuppa	12.1 miles
Framingham Center to South Sudbury	4.0 miles
Westfield to Holyoke	11.8 miles
Westfield to Easthampton	11.9 miles
TOTAL	122.3 miles

Interstate Lines

Canaan (CT) to South Barrington	12.0 miles (9.0 in MA)
Ferry Street to Portsmouth (RI)	8.9 miles (2.2 in MA)
GRAND TOTAL	133.5 miles



I. Projects for Title IV Assistance

- Branchline Rehabilitation
- Other Title IV Projects
- Projects for Assistance from Other Than Federal Sources
- NERCOM-Funded Track and Communication Work
- NERCOM-Funded Bridge Work
- NERCOM-Funded Yard Work

THE RAIL SYSTEM IN MASSACHUSETTS

The railroads in Massachusetts must be considered in the context of the regional and national rail systems. Without adequate connections, the New England rail system would not exist.

The movements of traffic east - west are provided by ConRail and the Boston & Maine via the Delaware & Hudson. In addition to the connections as detailed above, the D&H has a route to Potomac Yard for movement to the south and many western points. The D&H thus emerges as an important link with the B&M to provide a competitive transportation link between the Commonwealth and the rest of the U.S.

The traffic movements within New England often involve the B&M or the Central Vermont. Both railroads serve northern New England points either directly or indirectly through connections with other railroads that serve this region with the Consolidated Rail Corporation and the Providence & Worcester, both of which serve the southern tier of New England.

These three railroads, ConRail, the B&M (via the D&H) and the Central Vermont, provide the basic transportation spine that moves the traffic into and out of the Commonwealth. The other railroads within the Commonwealth are dependent upon these railroads for the interstate movement of freight.

The Commonwealth recognizes the importance of the mainlines. One way has been through the expenditure of NERCOM funds within the Commonwealth, with these funds concentrated in projects that improve main lines (as on the B&M). Another way has been through participation in the Federal 503 studies of the 4R Act where the Commonwealth has vigorously pursued a policy of bringing forth the importance of adequate rail service to the Commonwealth and New England by having two category A mainlines connecting New England with the rest of the United States.

A. General Description Of Railroad Companies

There are at present 15 railroad companies in Massachusetts. Much of the Penn Central has been reorganized into the Consolidated Rail Corporation (ConRail) under the Regional Rail Reorganization Act. The Penn Central estate retains certain properties in the Commonwealth. The Boston & Maine is currently reorganizing under Section 77 of the Bankruptcy Act. The other Class I railroad, the Central Vermont, is solvent. Of the remaining twelve, three are operating companies--the Providence and Worcester, the Grafton and Upton and the Fore River Railroad. Two additional non-operating companies lease their rights-of-way to operating companies. Finally, five groups are organizing in an attempt to become short line operators. These groups are the Bay Colony Railroad Corporation, the Berkshire Railroad Company, Cape Cod Railways, Inc., Massachusetts Central Railroad Corporation and the Millbury Railroad Corporation.

1. Operating Companies

Consolidated Rail Corporation (CRC)

In Massachusetts, ConRail operates 630.6 miles of mainline and branchline track.¹ In addition, the CRC operates over more than 500 highway crossings, 11 of which were unprotected, 219 were protected by audible and visual signals, 272 were protected by electric signals, three by flagmen and gates, and thirty-six by gates alone.²

Engineering evaluations of CRC rights-of-way in Massachusetts have produced estimates of nearly \$148,000 per mile to rehabilitate the system and remove slow orders. This amounts to more than \$100 million.

In 1976, CRC generated 916,805,000 ton miles of revenue freight in Massachusetts. Total freight car miles amounted to 46,365,000 and train miles amounted to 1,025,441. Passenger operation over 92 miles of track generated 401,242 train miles, 34,926,540 passenger miles and 2,180,139 passengers carried.

¹ Based on the January 1, 1977, Conrail track charts.

² Ibid.

By 1980, 31.7 million tons are projected by Harbridge House³ to be handled on the Penn Central system (now CRC) in New England. This represents a 6.3 percent increase over 1973. These figures, based on 1973 and earlier data should probably be revised downward to reflect the slower economic growth since 1973.

Projected Totals: ConRail/New England

<u>Traffic</u>	<u>1973 Tonnage</u>	<u>1980 Tonnage</u>	<u>1973-1980 Growth Rate (%)</u>
Local	1,990,769	2,053,368	+3.1
Forwarded	2,576,774	2,712,580	+5.2
Received	12,716,340	13,526,329	+6.3
Bridge	<u>12,534,467</u>	<u>13,421,834</u>	<u>+7.0</u>
Totals:	29,818,350	31,714,111	+6.3

In all traffic types, excepting the local traffic, commodities carried by ConRail are highly diversified. The following gives significant commodity groups in each type of traffic according to the 1973 tonnage share, along with their projected growth rates.

<u>Share of Traffic Type 1973 (%)</u>	<u>STCC</u>	<u>Commodity Category (primary component)</u>	<u>1973-1980 Growth Rate (%)</u>
LOCAL			
(1) 49	1421	Crushed and broken stone	+ 2.0
(2) 23	2911	Petroleum refining products	- 1.1
(3) 7	4611	Mixed shipments	+ 8.0
FORWARDED			
(1) 14	4511	Shippers association and similar traffic	+ 5.0
(2) 11	4411	Freight forwarder traffic	- 6.0
(3) 10	4611	Mixed shipments	+ 3.0
(4) 9	4021	Metal scrap, waste and tailings	+12.5
(5) 6	1421	Crushed and broken stone	0.0

³ Harbridge House, Inc., June 1975, Traffic Volume Projections for 1980: New England Railroads.

Share of Traffic Type 1973 (%)		STCC	Commodity Category (primary component)	1973-1980 Growth Rate (%)	
RECEIVED					
(1)	5	2621	Paper, except building paper (newsprint)	+	8.7
(2)	5	1471	Chemical and fertilizer minerals (rock salt)		0.0
(3)	4	2631	Paperboard, pulpboard, fiberboard	+	4.0
(4)	4	3312	Primary iron and steel products	+	6.0
(5)	4	2421	Lumber and dimension stock	+	5.0
(6)	4	2041	Flour and other grain mill products (flour and middlings)	+	8.0
(7)	3	3711	Motor vehicles and equipment (passenger cars, trucks)	-	4.8
(8)	3	1491	Misc. non-metallic minerals, NEC (peat, earth)		0.0
(9)	2	2432	Veneer and plywood	+	3.5
(10)	2	3714	Motor vehicle parts and accessories	+	3.0
BRIDGE					
(1)	16	2621	Paper, except building paper	+	11.2
(2)	9	1121	Bituminous coal		0.0
(3)	5	3714	Motor vehicle parts and accessories	+	17.0
(4)	4	2611	Pulp and pulp mill products	+	13.2
(5)	4	3295	Non-metallic earths and minerals, NEC	+	4.2
(6)	4	1011	Iron ores (iron concentrates)	+	12.0
(7)	3	0113	Grains (corn, oats)		0.0
(8)	2	2421	Lumber and dimension stock	+	1.1
(9)	2	2631	Paperboard, pulpboard, fiberboard	+	10.2

Presently, Conrail has nearly a fifth of its system, over 2,900 miles of branchlines, under evaluation. The timing of this analysis is remarkably geared to the April 1, 1978, end of the abandonment moratorium.

Nineteen of these branchlines are in Massachusetts, totalling 133.5 miles--over one-fifth of the Conrail system in the Commonwealth. EOTC estimates show that these lines serve over 100 industries and employ over 5,000 people. (See Map H.2, page III.15.)

EOTC feels that Conrail has not yet tried to overcome many years of previous neglect on these branchlines. There has been very little maintenance, rehabilitation or sales effort expended on any of the lines under analysis. In fact, Conrail's experience of barely a year has not provided a sufficient record for an adequate evaluation nor sufficient time for Conrail to have given revitalization of these branchlines an adequate effort.

The depressing cloud of uncertainty and the threat of abandonment of rail lines must be lifted. Business and industry cannot make rail-related investment decisions in the face of such uncertainty. This uncertainty is an especially heavy burden on our efforts to revitalize the northeast economy. EOTC has requested the Consolidated Rail Corporation to make very clear how its abandonment decisions will be made and precisely what criteria will be applied. EOTC feels that Conrail policy should be against abandonment unless a branchline has a long, continuous record of substantial loss with no hope for a turnaround. There should be no abandonment until Conrail has, through several years of intense revitalization effort, proved conclusively that each line does not contribute to the system. Conrail should utilize the analyses now underway to identify those branchlines which need Conrail's special effort to make them viable and permanent contributors to the Nation's rail system and economy.

Boston & Maine (B&M)

The bankrupt Boston & Maine Corporation is the second largest operating railroad in the Commonwealth after ConRail, with a total of 2,296 miles of track in the states of Maine, Massachusetts, New Hampshire, Vermont and New York. In Massachusetts, the railroad operates over 1,260 mainline, branch, yard, siding, switch and passing track miles radiating north and northwest from Boston.⁴

Two major southerly routes from Vermont and New Hampshire intersect with the east-west mainline and extend into the major central and western cities of Worcester and Springfield. Local branch line operations further extend service to nearly one hundred smaller towns and cities scattered throughout the northerly half of the state.

As of January 1, 1977, the Boston & Maine Corporation operated 168 diesel locomotives, 3,638 assorted cars and 411 cabooses. The average rail weight throughout the B&M system was 115 pounds per yard. Net ton miles in 1976 were 2,466,167,000 with gross revenues of \$80,107,000. Total locomotive unit miles came to nearly 6,900,000 and locomotive train miles amounted to 1,704,570.⁵

The B&M has interchange service with the Canadian Pacific, Canadian National, Central Vermont, Maine Central and CRC. It is the only link for northern New England railroads to other major lines within the United States. The railroad maintains yards in Lowell, Worcester, Ayer, Boston, Fitchburg, Lawrence and East Deerfield, Massachusetts.

In general, many of its most heavily used lines are now operating at increased speeds as a result of a rehabilitation grant from the New England Regional Commission. These lines include: Boston to East Deerfield to Rotterdam Junction; Boston to Lowell; Lowell to Willows; and, Wilmington to Portland, Maine.

⁴ MCA Engineering Corporation, March 1975, Conditions of Railroad Track Facilities in New England.

⁵ B&M 1976 Annual Report to the ICC

More specifically, the B&M has participated quite extensively in a grant program for labor costs funded through the NERCOM in both 1976 and 1977. The 1976 program involved work to rail lines and bridges and miscellaneous projects through the Commonwealth. Tie renewals, track surfacing and rail replacements were done on major segments of the Fitchburg mainline. For instance, 44,000 ties were installed in 66.7 miles of track. The Portland mainline and Stony Brook segments of the B&M also had track surfacing done.

Bridge clearances were increased under 5 bridges on the Portland mainline; this allowed the B&M to lift restrictions on piggyback service to Portland, Maine and other Maine points. Where previously only the smaller trailers could be moved via rail to Portland and the bigger ones had to be offloaded at Ayer, Massachusetts, and trucked over the road to Portland, the increased clearances allow most of the trailers used in railroad service to move via rail directly. In addition, the NERCOM funds were utilized by the B&M to weld several miles of rail, install insulated joints, and do miscellaneous repair to 15 bridges in various parts of the Commonwealth.

The 1977 projects are less extensive than those in 1976 due in large part to a lower level of funding, but the importance of these projects is of no less consequence. The first contract involves a coordinated project in New Hampshire, Vermont and the Commonwealth; this project was designed to increase clearances on the B&M's Connecticut River line to permit the handling of high and wide loads between US points and Canada and many parts of New England, particularly central and eastern Massachusetts. This improved route will allow the B&M (and Central Vermont) to compete for traffic that heretofore could not be moved via rail but by alternative modes at higher costs.

The second contract involves funding for projects designed to increase or maintain train speeds, and increase transit time reliability, on various B&M mainlines. The Fitchburg line will have over 5,000 ties installed, 7.2 miles surfaced while the Connecticut River line will have 10,000 ties installed and 23.4 miles of track surfaced. In addition, needed maintenance will be done on 5 mainline bridges, 38 miles of pole line will be rehabilitated to improve communications, and 34.5 miles of insulated joints will be replaced with an improved joint which has a longer service life.

In addition to the NERCOM program, the Boston & Maine Railroad has undertaken a major rehabilitation effort with its own funds throughout the entire B&M system. The total program has encompassed fifteen track miles of continuous welded rail (seven new, eight miles of re-lay). Also, 297 track miles were surfaced and ballasted and, 9,720 rail ends were built up by welding and grinding, which returned the rail joint to almost-new condition. Four thousand fifty welds were done on strings of rail in the welding plant. (Plus 4,270 were done for ConRail.) Rehabilitation of 75 frogs, 192 switch points, 175 switch stands, 165 switch rods, 40 connecting rods, repair of over 1,000 small tools and reclamation of over 60,000 spikes represents a savings of \$340,000, based on replacement costs of this material! This work is representative of the general rebuilding the Boston & Maine Railroad has been doing since bankruptcy.

	1962-1972 Average <u>Per Year</u>	1973-1976 Average <u>Per Year</u>	<u>1976</u>
Ties Installed	34,690	137,830	136,830
Miles Surfaced	167	301	297
Miles of Welded Rail	1.2	11.7	15
Tons of Ballast	16,400	67,400	56,000

In 1973, the B&M carried 14.9 million tons. Harbridge House⁶ has projected that in 1980 slightly less than 16 million tons of traffic will be handled by the B&M. This represents a 7.1 percent increase over the 1973 volume of 14.9 million tons.⁷ The largest increases are expected to occur in forwarded and local traffic, although their total volumes are less than the other traffic types. (These projections were based on 1973 data and should probably be revised downward to reflect the economic downturn since 1973.)

⁶ Harbridge House, Inc., June 1975, Traffic Volume Projections for 1980: New England Railroads

⁷ Temple, Barker, and Sloane, Inc., in its Forecast of Traffic and Revenues 1974-1980, prepared for the United States Railway Association, have projected a 7.7 percent growth rate for the B&M.

Projected Totals: B&M

<u>Traffic</u>	<u>1973 Tonnage</u>	<u>1980 Tonnage</u>	<u>Growth Rate (%)</u>
Local	799,081	941,692	+17.8
Forwarded	1,704,589	1,859,791	+ 9.1
Received	7,885,372	8,332,229	+ 5.6
Bridge	<u>4,542,298</u>	<u>4,855,921</u>	<u>+ 6.9</u>
	14,931,340	15,989,633	+ 7.1

The major commodities handled by the B&M were projected by Harbridge House to show the following growth rates:

<u>Share of</u> <u>Traffic Type</u> <u>1973 (%)</u>	<u>STCC</u>	<u>Commodity Category</u> <u>(primary component)</u>	<u>1973-1980</u> <u>Growth Rate (%)</u>
LOCAL			
(1) 40	1441	Sand and gravel (gravel)	+ 6.0
(2) 20	291	Products of petroleum refining (residual fuel oil)	+77.0
(3) 11	4021	Metal scrap, waste, tailings	+ 6.0
FORWARDED			
(1) 13	262	Paper, except building paper	+12.0
(2) 8	263	Paperboard, pulpboard, fiberboard	+15.0
(3) 7	264	Converted paper and paperboard products (sanitary products)	-15.0
(4) 7	4021	Metal scrap, waste, tailings	+ 8.0
(5) 5	2062	Sugar, refined, cane and beet	+10.0
RECEIVED			
(1) 13	1121	Bituminous coal	+ 0.0
(2) 6	261	Pulp or pulp mill by-products (pulp)	+12.0
(3) 5	262	Paper, except building paper	+10.0
(4) 5	263	Paperboard, pulpboard and fiberboard	+12.0
(5) 5	281	Industrial and organic and inorganic chemicals	+15.0
(6) 5	324	Hydraulic cement (Portland)	+ 5.0
(7) 4	147	Chemical and fertilizer minerals (rock salt)	+ 4.0
(8) 4	2041	Flour and other grain mill products (wheat flour)	+ 8.0

(9)	3	291	Products of petroleum refining (residual fuel oil)	-31.6
(10)	3	331	Steel works and rolling mill products (iron and steel)	+ 3.0

BRIDGE

(1)	29	262	Paper, except building paper	+ 7.6
(2)	9	329	Abrasive or asbestos products	+ 6.0
(3)	8	0113	Grain (corn)	+ 0.0
(4)	5	261	Pulp or pulp mill products (pulp)	+13.0
(5)	5	147	Chemical or fertilizer minerals (rock salt)	+ 5.0
(6)	4	2042	Prepared feed, animal fish, and poultry	+ 9.0
(7)	4	264	Converted paper and paperboard products	+ 7.0

On December 12, 1975, the B&M submitted a reorganization plan to its bankruptcy court and to the ICC. The first step of this reorganization plan called for the sale of approximately two hundred and seventy miles of Boston-area rights-of-way to the Massachusetts Bay Transportation Authority. The necessary purchase and sale agreement was approved by the ICC on June 25, 1976, and was consummated on December 27, 1976. The B&M lines acquired by the MBTA are marked on Map "A" included in Chapter III. B&M will retain an easement for all necessary freight operations.

The B&M has petitioned its bankruptcy court for permission to seek abandonment of 47 miles of freight branch lines in Massachusetts. The lines proposed for abandonment are:

Northampton to Wheelwright	38.7 miles
Townsend (Valuation Station 567 + 45) to New Hampshire State Line	3.3 miles
South Acton to Maynard	2.7 miles
Hudson to Marlboro	2.19 miles

The Executive Office of Transportation and Construction has evaluated the importance of each of these branch lines. The results of the evaluations will determine EOTC's position before the ICC on these abandonments. The evaluations will also consider the possible use of federal and state funds for subsidizing continued operations.

The Northampton to Wheelwright line has been determined to be vital to the local area and to the Commonwealth. Industry along the line would be forced to close if service closed. The Ware River Valley, through which this line passes, is characterized by high unemployment. Loss of rail service--and the resulting loss of jobs--would be disastrous.

The Massachusetts Central Railroad has agreed to commence operations on this line when service is terminated by the B&M. The B&M has agreed to fund certain track improvements necessary for the Massachusetts Central to commence operations.

The line from Townsend to the New Hampshire State Line has seen virtually no service for the past several years. Little or no demand presently exists. The Commonwealth has no plans at this time to subsidize continued service if the B&M is successful in its abandonment application.

No demand exists on the South Acton to Maynard line. The only industrial building on the line--an old mill complex--is now occupied by a very successful manufacturer of mini-computers. Diversion to the rail mode of any type of inbound or outbound traffic at this facility is most unlikely. This line is owned by the Massachusetts Bay Transportation Authority. The Commonwealth has no plans at this time to subsidize continued service if the B&M is successful in its abandonment application.

The Hudson to Marlboro line has seen little or no service in recent years. Little or no demand exists or is anticipated on this line. The Commonwealth has no plans at this time to subsidize continued service if the B&M is successful in its abandonment application.

Central Vermont (CV)

The Central Vermont Railway, Inc., with 446 miles of track and trackage rights, serves the states of Connecticut and Vermont in addition to Massachusetts. Its operations extend into Canada as a natural connection with its parent company, the Canadian National.

The CV interchanges freight in Massachusetts with the Boston & Maine and ConRail. Interchange with the Boston & Maine takes place in Massachusetts in the towns of Belchertown and Millers Falls. ConRail interchange takes place in Palmer.

The railroad enters the Commonwealth on its northerly border at the town of East Northfield in a southerly route taking it through Millers Falls, Montague, North Amherst, Amherst, Belchertown, Three Rivers (Palmer), Monson, South Monson, and to the Connecticut border.

The railroad maintains a small yard in Palmer which would require a minimum expenditure of more than \$600,000 for upgrading based on a 1975 survey completed by MCA Engineering Corp.

CV operates 55 miles of mainline and 9.28 miles of side track in Massachusetts. The total operating freight revenues in 1976 amounted to \$11,485,000. During the reported year, the company had 16 diesels in operation which generated 274,340,000 train miles and 580,821,000 gross ton miles. Net ton miles of revenue freight amounted to 267,768,000.¹¹

The company installed 21,664 ties, spread 12,754 tons of ballast in its system and laid 1.148 miles of relay rail.¹¹ The railroad operates over 48 grade crossings, 22 of which are unprotected and 26 of which are protected by audible and visual signals. There are 13 highway and roadway bridges over the CV system in Massachusetts.¹¹

In 1973, the Central Vermont carried 2.3 million tons. Harbridge House¹² projects: "the total rail traffic of the Central Vermont is projected to have a growth rate of 7.3 percent by 1980, thereby increasing its 1973 volume of 2.3 million tons to slightly over 2.5 million. Shipments bridging the Central Vermont will show the greatest increase." In 1976, the CV carried 2.2 million tons. The 1976 figures show a decline in the CV's tonnage. Therefore, the projections based on 1973 data and should probably be revised downward to reflect the economic slow-down since 1973.

Projected Totals: CV

<u>Traffic</u>	<u>1973 Tonnage</u>	<u>1976 Tonnage</u>	<u>1980 Tonnage</u>	<u>Growth Rate (%)</u>
Local	26,110	17,701	27,025	+3.5
Forward	109,036	99,726	111,410	+2.2
Received	829,034	829,745	880,912	+6.2
Bridge	<u>1,369,515</u>	<u>1,253,702</u>	<u>1,484,118</u>	<u>+8.4</u>
Totals:	2,333,695	2,200,874	2,503,465	+7.3

¹¹ Central Vermont 1976 Annual Report to the ICC

¹² Harbridge House, Inc., June 1975, Traffic Volume Projections for 1980: New England Railroads.

(Central Vermont--cont'd.)

Major commodities carried by the CV are projected to show the following growth rates.

<u>Share of Traffic Type, 1973 (%)</u>		<u>STCC</u>	<u>Commodity Category (primary component)</u>	<u>1973-1980 Growth Rate (%)</u>
LOCAL				
(1)	66	2042	Prepared feeds, animal, fish, and poultry	0.0
(2)	22	2432	Veneer and plywood	+19.0
FORWARDED				
(1)	20	265	Containers and boxes, paperboard	+10.0
(2)	18	263	Paperboard, pulpboard, fiberboard	+15.0
(3)	12	2432	Veneer and plywood	+ 8.0
(4)	12	2611	Pulp and pulp mill by-products (pulp)	+ 3.0
RECEIVED				
(1)	19	0113	Grain (corn)	+ 9.0
(2)	13	2041	Flour and other grain mill products (wheat middlings, by-products)	+15.0
(3)	12	2042	Prepared feeds, animal, fish, and poultry	+17.0
(4)	6	1121	Bituminous coal	-69.0
(5)	5	2912	Liquified petroleum and coal	+23.0
<u>Share of Traffic Type, 1973 (%)</u>		<u>STCC</u>	<u>Commodity Category (primary component)</u>	<u>1973-1980 Growth Rate (%)</u>
BRIDGE				
(1)	26	262	Paper, except building paper	+14.0
(2)	13	2611	Pulp and pulp mill products	+16.0
(3)	9	2421	Lumber and dimension stock	- 3.0
(4)	6	329	Abrasives and asbestos products (light-weight aggregates)	-21.5
(5)	3	2912	Liquified petroleum and coal gases (LPG)	-10.0
(6)	3	0113	Grains (corn)	+10.0
(7)	2	147	Chemical and fertilizer minerals (phosphate, rock salt)	-20.0
(8)	2	149	Miscellaneous non-metallic minerals	+ 6.0
(9)	2	3241	Hydraulic cement (Portland)	+26.0
(10)	2	263	Paperboard, pulpboard, fiberboard	+10.0

Providence and Worcester (P&W)

The Providence and Worcester Railroad, totaling 221 miles of main line, siding and switching track, links the city of Providence, Rhode Island, with the Massachusetts Cities of Worcester and Gardner. At Worcester, the P&W interchanges with ConRail and the B&M. At Gardner, the railroad interchanges with Boston and Maine on that carrier's mainline connecting with Boston on the east and Mechanicville, New York, on the west. Total P&W track miles in Massachusetts is 83.6.

Although the P&W has been improving the condition of its right-of-way, recent engineering evaluations have indicated that an expenditure of a minimum of \$783,000 to upgrade the lines and remove slow orders is needed.¹³

In its five-year operating existence, the Providence and Worcester Railroad has demonstrated itself to be an aggressive marketer of its services. It operates eight new diesel locomotives, 19 owned cars, 12 leased insulated box cars, and 3 cabooses. In 1976, the railroad had generated 87,174 train miles and 1,549,918 car miles. Its revenue ton miles amounted to 74,325,481, which generated freight and switching revenues of \$4,915,322.¹⁴ In the first quarter of 1977, the P&W agreed to manage 300 new 50 foot box cars. This will enable the railroad to meet the shipping needs of its consignees much better than it has heretofore when it only had 12 cars under its control and had to rely upon connecting carriers for a box car supply.

The carrier operates 75 miles of track over 30 grade crossings in Massachusetts; one is unprotected, 16 are protected by audible and visual signals, and ten by visual signals only. The average weight of rail is 115 pounds. The carrier maintains its rail on a 3,200 ties-per-mile basis.

The P&W has undertaken extensive maintenance of way rehabilitation on its lines, either financed from internal funds or through NERCOM funds.

The P&W is receiving \$275,500 through the NERCOM to undertake yard improvements at the Worcester yard that will increase the ability of the P&W to provide a higher level of service to its accounts, a level of service which is already high by New England standards. The Worcester yard is the key yard on the P&W system as over 80% of all P&W traffic moves through it.

¹³ MCA Engineering Corporation, Ibid.

¹⁴ P&W 1974 Annual Report to the ICC.

The work involved is to renew 20 switches and install 2,000 ties which will permit the P&W to move the traffic through the yard more efficiently and quickly than it otherwise could do before.

The P&W's own program of improving the right-of-way was particularly aggressive in 1976 when it accounted for over 35% of gross revenues. This is far above the railroad industry's average of 14-18% and indicates its intention of building a railroad that is quite capable of handling ever-increasing traffic.

On April 1, 1976, the P&W acquired rail lines in Massachusetts, Connecticut and Rhode Island, most of which were slated for abandonment under USRA's Final System Plan. These lines include:

Webster to Southbridge, USRA Line No. 40	10.6 miles
Auburn to Putnam (CT), USRA Line No. 678A	20.5 miles
Worcester to Auburn	4.0 miles
Putnam, CT, to Plainfield, CT	17.8 miles
Plainfield, CT, to Willimantic, CT	26.0 miles
Cranston, RI, to Pontiac, RI	3.9 miles

These acquisitions made P&W a three-state carrier, significantly increasing its mileage. As a result of these acquisitions, P&W doubled its traffic volume.

Over a 12-month period, from July 1973 through June 1974, the Providence and Worcester carried 489,000 tons of freight, excluding minor quantities of local and bridge traffic. In 1976 the company carried 1,102,421 tons of revenue freight.

Harbridge House¹⁵ projections indicate that major commodities carried by this railroad are expected to increase as follows:

Traffic Type, 1973 (%)	STCC	Commodity Category (primary component)	1973-1980 Growth Rate (%)
FORWARDED			
(1) 26	3312	Primary iron and steel products	+ 8.0
(2) 18	2661	Building paper and building board	+ 18.0
(3) 11	4024	Paper wastes and scrap	+ 9.0
(4) 8	4021	Metal scrap waste and tailings	+ 12.0
RECEIVED			
(1) 18	1471	Chemical and fertilizer minerals	+ 4.0
(2) 12	4021	Metal scrap, waste, and tailings	+ 9.0
(3) 7	2082	Malt liquors	+ 19.0
(4) 6	3295	Non-metallic earths and minerals	+ 8.0
(5) 6	2621	Paper, except building paper	+ 2.0
(6) 4	2821	Plastic materials	+ 19.0
(7) 3	2041	Flour & other grain mill products	+ 3.5
(8) 3	2647	Sanitary paper products	+ 20.0

¹⁵ Harbridge House, Inc., Ibid.

Grafton and Upton Railroad Company (G&U)

Headquartered in Hopedale, Massachusetts, the Grafton and Upton operates a total of 20.32 miles of track including siding and switches between the cities of North Grafton and Milford, Massachusetts. Operating with nine employees and two diesels, the railroad carried 36,753 revenue tons and produced 255,977 revenue ton miles on its rights-of-way in 1976.

This shortline railroad operates over 34 highway crossings and two bridges. Average rail weight is 85 pounds. In 1976 the company replaced 454 ties on a basis of 2,880 ties per mile. Its diesels accumulated 14,777 train miles.¹⁶

Fore River Railroad Corporation

The Fore River Railroad Corporation is owned and operated by the General Dynamics Corporation of St. Louis, Missouri. The company's ship building operation in Quincy and the Proctor and Gamble manufacturing operations are the principal users of the line.

Operations take place between the city of Quincy and the town of Braintree on 3.76 miles of track which include 1.35 miles of switching track. The railroad owns 1.83 miles of track and leases 1.93.

Rail weights range from 85 to 115 pounds. Thirteen company employees operate the railroad; three as an extension of their General Dynamics duties and ten as full-time railroad employees. The line is operated with two 600 horsepower diesels which moved 1776 revenue cars and 1771 non-revenue cars producing gross revenues of \$243,242 with net income of \$50,946.¹⁷ This railroad has become one of the more successful small railroads in New England.

2. Non-Operating Companies

Stony Brook Railroad Corporation (SB)

The Stony Brook Railroad Corporation is headquartered in Boston and is 62.1% owned by the B&M. Its 11-mile long right-of-way runs from the junction called Willows (east of Ayer) to North Chelmsford; it forms part of the east-west mainline of the B&M. Stony Brook trackage also includes an additional 6.41 miles of side track, switching and yard track. The line is leased by the B&M which maintains the right-of-way and operates the line as part of its own system.¹⁸

¹⁶ Grafton and Upton 1976 Annual Report to the ICC (an update).

¹⁷ 1976 Fore River Railroad Annual Report to the ICC (an update).

¹⁸ Stony Brook Railroad 1974 Annual Report to the ICC (an update).

Vermont and Massachusetts Railroad Company (V&M)

The V&M is headquartered in Fitchburg, Massachusetts, and owns a 60-mile line of right-of-way from that city to Greenfield, Massachusetts, and a segment of track to Turner's Falls, Massachusetts. Crossovers, turnouts, way switching and yard switching add another 62 miles of track to bring the total track mileage owned by the company to 122 miles. The company leases its line to the B&M under a 999-year lease dating from the 1800's. The line is a component of the B&M east-west mainline.¹⁶

Norwich and Worcester Railroad Company (N&W)

The N&W is headquartered in Worcester, Massachusetts. At the present, the N&W owns no rolling stock and does not engage in carrier activities. Since most of its properties and other physical assets were conveyed to ConRail or the P&W on April 1, 1976, it is doubtful if this railroad will ever become an operating railroad.

Holyoke and Westfield Railroad Company

Most of the physical assets and properties were conveyed to ConRail April 1, 1976. Prior to this time it was a leased line of the Penn Central Railroad. When it was a leased line, it held title to 10.40 miles of right-of-way with accompanying trackage in switches and yards and most of the stock was held by the City of Holyoke, Massachusetts. In June 1977 Conrail listed this line as under study for potential abandonment.

3. Newly Chartered Companies

Five business groups have approached EOTC about their intentions of running short line railroads in the Commonwealth. It is our opinion that a well-run and well-managed short line railroad can, in many cases, provide a higher quality of service at a lower cost on light density branch lines than can a major trunk line railroad. In particular, a responsible short line has the potential to be more sensitive to a local area's needs.

This office has worked closely with several groups making it clear that our endorsement is contingent upon their satisfying good business practices; our intent is to insure long-range rail freight service. As all of the short line rail proposals to date concern areas that have high unemployment and low development rates but good industrial potential, we are concerned with not only giving the present businesses as good rail service as possible but with attracting new businesses with the improvement of rail service.

Therefore, this office and the Department of Commerce and Development have been particularly sensitive to the needs of the present and potential local shippers; local support is one of the criteria upon which any decision would be based.

The Bay Colony Corporation

Bay Colony Railroad, headquartered in Wareham, has plans to service the rail freight needs of Cape Cod from Middleboro to Hyannis, South Dennis and Falmouth. This railroad company was chartered in 1977.

The Berkshire Railroad Company

Headquartered in Berlin, Connecticut, the Berkshire Railroad Company was granted its charter of incorporation by the Connecticut General Assembly in May 1977. The company expects to be in operation in Connecticut as a tourist excursion railroad by April 1, 1978. The railroad is trying to assume operations as an independent short line freight carrier on the rail lines running from South Norwalk, Connecticut to North Adams, Massachusetts, and, according to correspondence with the company, will be requesting permission and making arrangements to do so from the ICC, the FRA and from ConRail.

Cape Cod Railways, Inc.

The Samuel M. Pinsly Company has continued to meet with EOTC to discuss their desire to run a short line railroad, to be called Cape Cod Railways, Inc., on Cape Cod from Middleboro to Falmouth, Hyannis and South Dennis. They have submitted a preliminary proposal and have plans to formulate an independent freight and passenger/excursion line. The company presently owns and operates four successful short line railroads, all outside the Commonwealth.

Massachusetts Central Railroad Corporation

Incorporated by an act on December 16, 1975, the Massachusetts Central Railroad has plans to become a short line freight railroad and passenger excursion line on the so-called Wheelwright line of the B&M. This line runs from Northampton to Wheelwright with sections over the CV and USRA Line number 8. The B&M is supporting the MC's taking over operations before the ICC in the MC's application for a car service order.

The long-term plan of the MC is to become the designated operator of USRA #8, the Ware River Secondary Track.

The Millbury Railroad Corporation

The Millbury Railroad Corporation was officially incorporated in 1976. MRC proposes to own and operate the Millbury to Millbury Junction line which is currently owned by the Penn Central estate. Rail freight service on that line has been discontinued but the former users of that service have not relocated and have expressed interest to use rail once again.

B. Description Of Passenger Services

The rail passenger services presently operated in the Commonwealth consist of intercity operations by Amtrak and Boston area commuter operations by the Boston & Maine.

1. Intercity Operations

Amtrak

The principal Amtrak operations in Massachusetts are those from Boston southward through Providence, Rhode Island, and New Haven, Connecticut, to New York and points south and west and from Springfield southward to Hartford, Connecticut, and New Haven, Connecticut, and points south and west. Between Boston and New York, there are approximately ten trains per day each way. Between Springfield and Hartford or New Haven, there are approximately eight trains daily each way.

In addition, Amtrak operates one train per day each way between Montreal, Quebec, and Washington, D.C., and one train per day each way between Boston and Chicago, Illinois. The Montreal-Washington trains make stops in Springfield and Northampton. The Boston-Chicago trains stop in Boston, Framingham, Worcester, Springfield and Pittsfield, Massachusetts.

The route between Boston and New York via Providence, known as "the Shore Line," is the main line of the "Northeast Corridor." In Massachusetts, this route is owned by the Massachusetts Bay Transportation Authority (MBTA) and is presently under the operational control of Amtrak. A massive improvement program (the Northeast Corridor Improvement Program) is underway which will result in trip times of 3 hours, 40 minutes between Boston and New York. The congressionally-mandated deadline for achievement of this schedule is early 1981. Three-hour trip times are anticipated later in the 1980's. Massachusetts has appropriated \$18,000,000 to cover (in full) the "state share" of this program and is the first state to do so.

The route between Springfield and New Haven is also part of the Northeast Corridor. This track is owned and operated by Amtrak. Together with the ConRail track between Boston and Springfield, this track constitutes the "Inland Route."

The Montreal-Washington train is operated by Amtrak on Amtrak track as far north as Springfield, Mass. North of Springfield the train follows the Boston and Maine Railroad and is operated by crews of that railroad. Amtrak's Boston-Chicago train operates on ConRail track including the Boston-Springfield portion of the Inland Route.

Three additional service improvements are anticipated between now and August, 1978: Amtrak plans to restore track to a twelve-mile piece of former Penn Central right-of-way between Pittsfield and Albany. Amtrak owns this right-of-way which was traditionally the route of passenger trains into Albany. This will eliminate a long, slow back-up move which the Boston-Chicago trains must now make. Approximately one hour will be deleted from the schedule between Pittsfield and Albany. This is being funded entirely by Amtrak.

Secondly, restoration of through service between Boston and New York via the Inland Route is planned. (Currently, this trip involves transfers at both Springfield and New Haven, and is limited to one daily trip in each direction with the eastbound trip further complicated by the frequent late arrival at Springfield of the Chicago to Boston train.) Under a scheme currently being negotiated by Massachusetts and Amtrak, certain improvements (primarily reverse-signaling and cross-overs) to the ConRail track between Boston and Springfield will be made with 100% state funds in order to enable operation of viable passenger schedules on this heavily used freight route. In return, Amtrak will operate the service without subsidy. This will be a very valuable service, serving the major Inland Route cities of Worcester, Springfield and Hartford as well as providing easy access to passenger trains for residents of southern New Hampshire and Maine. A new beltway station is anticipated at Route 495.

Thirdly, Amtrak service from New York City to Cape Cod is planned. This service will operate over the Northeast Corridor between New York City and Attleboro, Massachusetts. It will leave the corridor at Attleboro and travel via Taunton to Buzzards Bay. At Buzzards Bay, the train will split with one segment going to Falmouth/Woods Hole and the other segment going to Hyannis. A new park-and-ride station is anticipated on the mid-Cape highway (Route 6) north of the downtown Hyannis station. Under a scheme currently being negotiated between Amtrak and Massachusetts, certain improvements (mostly track work) will be made to the ConRail track between Attleboro and Buzzards Bay. These improvements, which are necessary for viable operation of passenger service, will be made with 100% state funds. In return, Amtrak will agree to operate the service without subsidy. This will be a restoration of service on one of the New Haven Railroad's most popular routes, hopefully helping to lessen the major traffic problems that exist on the limited number of highways and bridges that lead to Cape Cod.

2. Commuter Rail Services (CRR)

The Commonwealth of Massachusetts and the Massachusetts Bay Transportation Authority (MBTA) support extensive commuter rail passenger service radiating south, west, and north of Boston. To preserve, improve and facilitate continuation of these services, the MBTA has acquired 145 miles of former Penn Central rights-of-way and some 270 miles of Boston & Maine rail rights-of-way. Included in these purchases are all existing rolling stock used in commuter rail passenger service, together with extensive support facilities, shops and real estate formerly owned by the Boston and Maine Corporation.

As of March 13, 1977, the Boston & Maine Railroad provides for the operation of all Boston suburban commuter rail service under contract to the MBTA.

MBTA Commuter Rail service is operated by the Boston & Maine from Boston to the following cities and towns:

Belmont	Swampscott	Natick
West Medford	Concord	Framingham
Reading	Lowell	Needham
Hamilton	Melrose	Norwood
Rockport	Salem	Walpole
Waltham	Manchester	Norfolk
Woburn	Winchester	Franklin
Lynn	South Acton	Sharon
Ipswich	Wakefield	Mansfield
Billerica	Beverly	Attleboro
Lincoln	Gloucester	Pawtucket-
Cambridge	Weston	Central Falls, R.I.
Wilmington	Newton	Canton
Malden	Wellesley	Stoughton
Providence, R.I.		

All service is operated under contract to the MBTA.

Because of funding arrangements for non-MBTA communities, the following cities and towns have reluctantly been forced to suspend commuter rail service for budgetary reasons:

Haverhill
 North Andover
 Lawrence
 Andover
 Newburyport
 Foxborough

In addition, poor track condition and a lack of sufficient funds for maintenance have forced termination of service to:

Arlington
Lexington
Bedford

Average daily weekday ridership (Monday - Friday) for the entire commuter rail system is presently about 30,000 trips per day. Ridership on both the Northside service and the Southside service is once again increasing (January - June, 1977) with total weekly Northside ridership up an average of 2.84%, and Monday - Friday weekday ridership up an average of 6.9% over the same period for 1976.

Southside ridership has been steadily increasing at an annual rate of 5% for more than 18 months. May 1977 figures were up 8.8% over May 1976 ridership for Southside service. These figures represent a most encouraging trend, given the fact that several communities served by CRR in 1976 had terminated service in 1977, and also by the fact that the capital improvement program work has just been started this July, 1977.

3. The Next Five Years

The MBTA is in the process of implementing a Commuter Rail Improvement Program (CRIP) to improve the 300-mile commuter rail network. This program is currently budgeted at \$300 million dollars.

Improvements will include, but not be limited to, replacement and rebuilding of all rolling stock (coaches, self-propelled cars and locomotives), station improvements, signs and public information, track, signal and bridge replacement and upgrading and the establishment of several fringe park and ride facilities at major highway interfaces.

This initial program will provide the basis of further improvements and logical extensions of service. The CRR system is financially and operationally the best solution to an intercity rapid transit system for the Commonwealth. Access to downtown terminals in virtually every major urban area in the state is a distinct advantage. Ownership of many of these tracks by the MBTA is also a distinct advantage.

The most immediate prospects for the extension of service are:

Boston - Haverhill (via Lawrence)
Boston - Fitchburg

These are on Authority owned main line track requiring little or no capital investment to implement service.

Boston to West Peabody presents itself as a short-range park and ride opportunity. Boston to Worcester service will require trackage rights from Framingham to Worcester from Con-rail in order to provide service, but this is a high-speed, well-maintained railroad. Other extensions require more significant work and are therefore longer range in scope.

C. The Mainline (System) Rehabilitation Program

The problems of the railroads in New England have been recognized by the states and the regional arm of the Department of Commerce, the New England Regional Commission. Through the efforts of NERCOM, funding first became available in 1976 to undertake major rehabilitation efforts on the various railroads within the region. This program is expected to continue for five years in the six states in the New England region: Massachusetts, Rhode Island, New Hampshire, Vermont, Connecticut and Maine.

The 1976 program in Massachusetts was devoted exclusively to the Boston & Maine Railroad. That railroad had extreme needs for major rehabilitation along its Portland, Maine, to Mechanicville, New York, main lines--the principal route out of southern and central New England other than via ConRail.

The \$1.2 million made available to the B&M was applied to the labor portion of the projects with an emphasis on employment of the previously unemployed. The materials and other expenses paid by the B&M brought the total magnitude of the project to approximately twice this figure.

The 1977 program has been split between two railroads, the Providence and Worcester and the Boston and Maine. The B&M has two separate projects. The first involves \$.15 million on the Connecticut River mainline to increase the clearances on this north-south line. This project will provide a more direct route for high and wide loads moving between some US points and Canada on one hand and many parts of New England on the other hand.

The second project is for \$.382 million. This will involve track work to the Fitchburg and Connecticut River main lines, (tie renewals, surfacing, and rail replacement) as well as work to bridges, pole line rehabilitation and insulated joints on lines throughout the Commonwealth.

The 1977 project on the P&W is for \$.28 million. This project will enable the P&W to undertake a major expansion and replacement of the Worcester Yard facilities. This yard is a key point on the routing of traffic on the P&W. This should help speed up traffic flows on the P&W, thereby providing a better level of service to railroad customers that the P&W serves in Massachusetts, Rhode Island and Connecticut.

As in the 1976 program, these figures represent funds applied to labor with the emphasis on reducing unemployment. The contributions of materials, engineering, equipment, and certain other costs by the railroads bring the total magnitude of these projects to well over twice the stated figures.

Planning for the 1978 program will soon begin, as well as formulating plans for the two remaining years of the program. It is hoped that funding will continue at a sufficient level to undertake major programs on various railroads within the Commonwealth. This will enable the railroads receiving the grant to improve their facilities sufficiently to provide a better level of service to the customers served within the Commonwealth.

The Commonwealth will continue to maintain initiative on the regional (and national) front on programs such as this that will enable the railroads to provide better service to the railroad customers.

V. DESCRIPTION OF ASSISTANCE PROGRAM

A. Subsidized Operations

The planned service continuation program is summarized in Table I, Chapter VI. Six lines have been continued in operation since implementation of the Final System Plan, April 1, 1976. These lines are proposed for continued operation, rehabilitation and acquisition by the Commonwealth. A seventh line will be started shortly.

The following line descriptions detail the particular reasons these lines merit state and federal subsidy assistance. In general, the effects of service discontinuance would be quite serious locally. Furthermore, the lines have significant industrial development potential and a reasonable prospect of achieving over a period of time viable self-sustaining operation without the need for permanent operating subsidy.

These lines total 89 miles and serve over 40 Massachusetts businesses handling almost 2,500 annual carloads. The direct impact of loss of rail service would be the loss of 746 jobs. Indirectly, approximately 1,119 additional jobs would be lost or a total of approximately 1,865 jobs.

Assuming a 7.2 percent inflation factor in 1977, based on estimates made by the Council of Economic Advisors, the 1977 operating year costs should amount to \$568,453. If acquisition of the Penn Central lines should be concluded prior to the end of this operating year, a portion of the lease costs on 89.1 miles of Penn Central right-of-way at \$2,475 per mile, totalling \$215,524, could be deducted from the subsidy cost and further reduce the operating deficit on the seven lines.

With the state funding 10 percent of the 1977 subsidy, its cost should amount to approximately \$56,845. Thus, the annual state cost per job saved could be as little as \$30.00 and the estimated annual state cost per carload could be as little as \$23.00.

Line No. 8, Palmer to South Barre

The Ware River Secondary Track extends from Palmer (Milepost 0.0) to South Barre, Massachusetts (Milepost 25.0), a distance of 25.0 miles, through Hampden, Hampshire and Worcester Counties, Massachusetts.

1. Community Description

Line #8 provides direct freight rail service to four communities in the Ware River Valley area including Palmer, Ware, Hardwick and Barre.

The table below indicates the 1960 and 1970 U.S. Census population figures for each of the aforementioned communities as well as the percentage change in population over this ten-year time span:

<u>Town</u>	<u>1960 Population</u>	<u>1970 Population</u>	<u>% Change</u>
Palmer	10,358	11,680	+ 11.4
Ware	7,517	8,187	+ 8.2
Hardwick	2,340	2,529	+ 7.5
Barre	3,479	3,825	+ 9.9

2. Physical Characteristics

a. Length 25.0 miles

b. Track single

c. Railroad Bridges	<u>Location</u>	<u>Condition</u>
	Springfield Rd., Palmer	Fair
	Gibbs, Ware	Very Good
	Ware River, Gilbertville	Poor
	Meadowbrook, Hardwick	Fair
	Hardwick Rd., Hardwick	Fair
	Ware River, Barre Plains	Poor

d.	Major Highway		
	Grade Crossings	Hardwick (local roads)	3
		New Braintree (local)	2
		Ware (Church St.)	1
		Ware (local roads)	2
		Ware (W. Warren & Anderson Rds.)	2
		Palmer (Bennett St.)	1
		Palmer (State St.)	1
		Palmer (Church St.)	1
		Palmer/Three Rivers (Main St.)	1
		Palmer (Rte. 181)	1

e. Track Conditions

This branchline requires considerable upgrading to meet the Federal Railroad Administration's minimum safety standards which have a 10 mph maximum operating speed. Estimates approved by the FRA for upgrading the track structure include the insertion of nearly 10,000 switch and cross ties, considerable bolt tightening, extensive joint bar installation and peripheral items throughout the 25-mile line length.

However, the 10 mph operating speed does not lend itself to efficiency and minimized operational costs on track of this length. Neither does it allow for increased traffic development which inherently requires additional operating time. Because of these considerations, EOTC has requested the FRA to consider the proposal that the line be upgraded to Class II standards of 25 mph. If this proposal is accepted, it is our opinion that there can be an increase of 130 to 150 carloads being moved to South Barre beginning immediately on an annual basis.

During the 1976-77 contract year, it is estimated that slightly fewer than 200 cars were moved over the line to the four active shippers below Milepost 14. Comments from the active users indicate that poor service, poor weather and consistent derailments have barred an increase in the carloadings on the line. Some shippers have reported that box cars have been left in the Palmer Yard although consigned to Gilbertville, approximately 14 rail miles away, forcing the rail users to employ truck carriage to obtain their shipments. ConRail reasons for this kind of operation are primarily because of lack of time to service the shippers and because of bad track conditions.

Commodities carried on this line include paper, packaging materials, lumber, scrap metals, metals, foundry supplies, building supplies, farm supplies, feed grains and fertilizers.

3. Present Rail Freight Usage

The Commonwealth has contracted with ConRail to provide twice-a-week service between Palmer and Gilbertville, approximately 14 miles, and once-a-week service, when needed, between Gilbertville and South Barre which is at the end of the line at Milepost 25.0. However, the line segment from Gilbertville to South Barre has been embargoed since November, 1975.

Active companies beyond the embargoed track at Milepost 14 would receive fabric wastes and coke in South Barre if the line were currently operating. As noted earlier, their shipments would be 130 to 150 carloads annually beginning immediately upon re-institution of service on the track.

Currently Active Rail Users

Palmer Federal Paperboard Company

Thorndike Diamond International Corporation

Ware Goldstein & Gurwitz
 Ludlow Corporation (served by B&M)
 Ware Lumber Company
 Ware Machine Works
 Ware Metals, Inc. (served by B&M)

Gilbert- Gilbertville Storage Company
 ville Hersey Products Foundry

Old
 Furnace Hardwick Farmers Cooperative

4. Impact of Rail Service Discontinuance

a. Economic Impact

The adverse economic impact of the discontinuance of rail service as identified by the present rail users on Line #8 in their responses to the "Massachusetts Rail Study--Freight Transportation Survey" conducted by the EOTC in the summer of 1975 is indicated in the table below:

Loss of Jobs if Rail Freight Service on Line #8 is Discontinued

<u>Present No. of Firms Using Rail Service</u>	<u>Present No. of Persons Employed by Rail Users</u>	<u>Job Loss Within One Year Due to Abandonment</u>
10	900	87

This projected job loss cannot be tolerated in an area which suffers from an average unemployment rate in excess of 8.5% (down from 25% in 1975) according to the Massachusetts Division of Employment Security (April 1977). The most recent unemployment statistics for the Town of Ware show an unemployment rate in excess of 8.5%. The Diamond International Corporation alone, which is located in Palmer, has stated publicly that if rail service were discontinued to its Thorndike plant, it may be forced to relocate, threatening a loss of better than 375 jobs. The impact on these workers and on the communities as a whole would be extremely severe, furthering the human and social hardship in a geographic area which by all criteria must be considered economically depressed. Loss of rail service would also undoubtedly cut any significant growth in the number of new job opportunities in the Ware River Valley area by discouraging, if not eliminating, the possibility of attracting new industries to the area and/or allowing for the expansion of those industrial establishments now operating in this area. The recently completed Palmer Industrial Park, for example, would find it extremely difficult, if not impossible, to attract industry in the absence of rail freight service.

b. Industrial Growth

The attraction of new industrial firms and the potential for growth for existing firms is heavily dependent on the future of rail service in the Ware River Valley. Many existing industrial plants have already deferred expansion as a result of the uncertain future of rail service. Similarly, plants which have already been vacated have experienced serious difficulties in resale, again due to the uncertainties surrounding rail freight service. Utilizing the combination of the available physical plants in the Ware River Valley, coupled with the available work force, an excellent opportunity exists for economic revitalization in the area.

c. Highway Capacity

A major traffic problem will result if rail freight service is abandoned on the Ware River Secondary Track. The area currently served by this branch is hilly and the highways in the vicinity have many curves and steep grades that are difficult to negotiate, especially in bad weather.

Route 32, which parallels the rail line, is a two-lane highway ranging from 20 to 53 feet in width with intersections not designed for the turning increments of large tractor trailers. At most major intersections, this condition results in blocking adjacent lanes as trucks attempt to negotiate turns. Transfer of rail traffic to trucks would result in an increase of at least 400 trucks on local roads.

5. Marketing Plans and Business Interest

Since the release of the Phase II Rail Plan in December 1975, we have continued to receive inquiries from the Ware River Valley area business community about our plans for this branchline. In

each inquiry, the question has been based on a desire to expand use of rail services, and, for the purpose of evaluating sites for new plant construction, to re-establish already-abandoned rail services.

Our replies include explanations of our intentions to rehabilitate the track structure and the contracting of service which will suit, as nearly as possible, the preferences of the rail users and, lately, the difficulties we have encountered in having all parties involved in an upgrading project act expeditiously.

Generating increased and long-term use of the branch line is based on our rehabilitation plans. If rehabilitation can begin this year, we expect to attract business interests which have held a "wait and see" attitude about locating on the line.

B&M and MCRR Coordination Project

In the hearing at the Federal District Court in Boston in December 1976 on reorganization under Section 77 of the Federal Bankruptcy Act, that Court heard the Boston & Maine's plea to rid itself of the service encumbrance it is obligated to fulfill on the Wheelwright Branch Line. The branch line extends from Northampton through Hadley, Amherst, Belchertown, Bondsville, Ware and onto the end of the line known as Wheelwright.

Concurrent with this B&M action, the Massachusetts Central Railroad Company has petitioned the Interstate Commerce Commission to be allowed to operate the B&M line from Northampton to Amherst, and from Bondsville to Ware during the abandonment interim.

The EOTC has closely monitored the B&M's effort to reorganize and the MCRR's efforts to begin operations. As an interested third party and participant as the contractor with ConRail, which would operate as a connecting carrier with the MCRR under an interchange agreement at the Ware Yards, the EOTC has been active in its role to obtain necessary permission for trackage rights from the Penn Central Estate and to provide its assistance in negotiations between the MCRR and B&M, and the MCRR and ConRail.

If this coordination project proves successful, carloads formerly moved from the Diamond International plant in Bondsville by the B&M will be moved by the MCRR for interchange at Ware with ConRail resulting in new traffic and revenues for the Ware River Secondary Track.

In addition, the Ludlow Paper Company, a former rail user, will also begin using service again for shipments originating and terminating at the company and entering and leaving the ConRail system through the Ware River Secondary. These movements will also add new revenues and should increase traffic on the line by nearly 200 cars annually.

The MCRR has indicated that it would work toward bringing former rail-using businesses in its operating area back to rail and actively solicit the development of new business. We will continue to monitor the issue until a resolution of the project has been made. In our opinion, our action demonstrates our support for the business community in the Commonwealth and provides the opportunity through which the MCRR can demonstrate its capability as a railroad.

6. Line Disposition

Given the merits of coordinating B&M traffic with that presently carried by ConRail through the MCRR, the growth of traffic in the South Barre area, and the locations available for new business development, we feel this line merits long-term service continuation along with a rehabilitation program that would support the growing confidence we see the business community developing in government ownership of rail rights-of-way.

The estimated ConRail subsidy cost for 1977 is \$52,994. The Commonwealth is seeking FRA approval to rehabilitate the line to FRA Class II standards (suitable for 25 mph) based solely on the operational time savings that result from the higher operational speed. The rehabilitation is also critical in that it allows more time flexibility in the train operations to accommodate the traffic growth prospects that this region has in general and the line has in particular.

The line is proposed for acquisition by the Commonwealth. Based on USRA's estimate of the salvage value of the line, the estimated acquisition price is \$914,622 or approximately \$36,584 per mile.

Line No. 13, South Sudbury to Chelmsford

The Lowell Secondary Track extends from South Sudbury (Milepost 4.7) to Chelmsford (Milepost 24.5), a distance of 19.8 miles in Middlesex County, Massachusetts.

1. Community Description

The communities through which the Lowell Secondary Track passes are: South Sudbury, Sudbury, North Sudbury, West Concord, Acton, North Acton, Carlisle, South Chelmsford and Chelmsford. Rail users are located in Acton and Chelmsford.

Population densities in the communities utilizing rail service through their industries are listed below. As of the April report from the Massachusetts Division of Employment Security's Massachusetts Trends, the communities suffer from an unemployment rate in excess of 6.5 percent.

<u>Town</u>	<u>Population</u>
Concord	16,148
Acton	14,770
Chelmsford	31,432
Total	62,350

2. Physical Characteristics

- a. Length 19.8 miles
- b. Track single
- c. Railroad Bridges A total of 15 bridges ranging from poor condition to new.
- d. Major
 - Highway Route 2
 - Grade Routes 2A and 119
 - Crossings Route 25
 - Route 27
 - Route 110

There is a total of 26 highway crossings along the line.

e. Track Conditions

This line requires upgrading to meet the requirements of the Federal Railroad Administration's minimum safety standards of a Class I operating speed of 10 mph. FRA-approved estimates for upgrading of the line include nearly 8,400 cross and switch ties, brush cutting, grade crossing improvements and the installation of numerous joint bars and other track structure items.

3. Present Rail Freight Usage

Under our contract with ConRail, this line is served two days per week--Tuesdays and Thursdays--by Train L131 originating from Framingham and employing a four-man crew. In 1976, 250 carloads were moved over the line. Commodities include lumber, feed grains, building supplies and fertilizer.

Currently Active Rail Users

Acton Acorn Structures, Inc.
 Deck House, Inc.
 Wickes Lumber

Chelmsford Agway, Inc.
 Harvey Building Supplies, Inc.

4. Impact of Rail Service Discontinuance

a. Economic Impact

If service were to be discontinued to the present users on this line, several related negative impacts would result. Those industries that can move their shipments by truck transport have indicated that they would have to pass on the higher costs to their customers. While this factor does not immediately threaten the existence of these industries, over the long term, due to competitive factors, these additional transportation costs would depress the growth of these companies and related job opportunities.

b. Industrial Growth

The line continues to offer excellent potential for growth of present industry and for the location of new industry. There are more than 50 acres of industrially zoned land contiguous to the rail line which are not adequately serviced by highways.

c. Highway Capacity

The Lowell through Concord area provides a network of highways and secondary roads with surface conditions ranging from fair to good. Route 27 winds back and forth across the line and carries an average daily traffic of 2,800 to 6,350 vehicles.

5. Marketing Plans and Business Interest

a. Generating Traffic

The businesses along this branch line have voluntarily agreed to work for the benefit of all by maximizing their use of rail services and by using themselves as an example for other industries interested in locating on subsidized lines.

Wickes Lumber in Acton continues to provide temporary unloading facilities for Acorn Structures, Inc., and for Deck House, Inc., two component home builders. Neither of the latter has their own facilities: Acorn had to delay plans for building a siding in 1973 due to

the Penn Central bankruptcy and the prospect of service abandonment; Deck House has now completed a materials handling warehouse designed to accommodate rail delivery and shipment.

These two companies, which had received rail shipments elsewhere on the Penn Central system and on the B&M, are now receiving all of their shipments at the Wickes facility.

EOTC is currently working with these two companies on the building of side tracks to their facilities; it is hoped that the side tracks will be completed by the fall of 1977 thus making their traffic permanent, giving the companies the incentive to increase rail use, and being an example to other companies of our commitment to the importance of service on this line.

Wickes Lumber is diverting as much traffic as possible to the line which ordinarily can be placed at locations receiving regular service in the ConRail system and in the B&M system.

b. Minimizing Operational Costs

Shortline railroad entrepreneurs and the B&M have begun to show increased interest in operating lines in the Commonwealth which are presently being operated under contract by ConRail. This Office welcomes proposals which demonstrate that reliable freight services can be provided to customers at lower costs.

Consignees on this line have periodically reported to EOTC what are felt to be inefficient train crew practices which may be indicative of problems with ConRail supervisory management controls. While operating conditions may be a cause of alleged inefficiencies, EOTC feels that supervisory management should take the lead in guiding the operating crews to more efficient levels of performance wherever this is possible.

The EOTC is investigating the extent of operational cost savings if operations were to be handled out of Lowell rather than South Sudbury which requires ConRail to travel approximately nine miles before reaching the first customer in Acton. Service from Lowell would mean travel of less than two miles to reach the first customer in Chelmsford and result in a service distance to Acton of approximately ten miles.

6. Line Disposition

This line, from South Sudbury to Chelmsford, merits continuation of freight service. This conclusion is based on considerations of economic impact of service discontinuance, industrial development and factors indicating that the rail traffic is not entirely compatible with movement by truck. The industry located on this 20.5-mile section produced 190 carloads of traffic in 1974. This traffic figure has already risen to 250 carloads and is expected to rise again when the two new industries located in the Acton area have their own sidings and housing starts to rise across the nation.

The estimated annual ConRail subsidy cost is \$81,888. This line is proposed for rehabilitation as needed. The Massachusetts Department of Public Utilities indicates that some segments exceed FRA Class II standards while others need upgrading to provide more efficient operation. Since traffic movements on this line have met expectations and long-term service goals, EOTC feels that the least costly and most efficient operation of the line is tied to a Class II operating standard.

The line is proposed for acquisition by the Commonwealth to eliminate the return on investment fee and to facilitate rehabilitation under Massachusetts legislation. Based on USRA's estimate of the net salvage value of the line, the estimated acquisition price is \$769,380 or \$37,530 per mile.

Line No. 17, North Abington to West Hanover

The West Hanover Secondary Track extends from a junction with the Plymouth Secondary Track at North Abington (Milepost 0.0) to West Hanover (Milepost 3.6) in Plymouth County, Massachusetts. The branch line serves industries in the towns of Rockland and West Hanover.

1. Community Description

The table below lists the latest population figures available and indicates the area's growth trend between 1960 and 1970:

<u>Town</u>	<u>1960 Population</u>	<u>1970 Population</u>
Rockland	13,119	15,694
West Hanover	5,923	10,107

2. Physical Characteristics

a.	Length	3.6 miles	
b.	Track	single	
c.	Railroad	<u>Location</u>	<u>Condition</u>
	Bridges		
		MP 0.55 Culvert	Fair
		MP 1.06 Culvert	Fair
		MP 3.68 River	Fair
d.	Major	Route 129	
	Highway		
	Grade	Route 123	
	Crossings		
		Route 139	

There is a total of eight grade crossings along the line ranging from poor to good condition.

e. Track Conditions

This line requires upgrading to meet the requirements of the Federal Railroad Administration's minimum operating standards of 10 mph Class I track. FRA approved estimates for upgrading to Class I operations include more than 1,500 cross and switch ties, spot surfacing, grade crossing improvements and extensive joint bar and peripheral track components installation.

3. Present Rail Freight Usage

This line is served Tuesdays and Thursdays by train BX14, a local freight originating in South Braintree and employing a crew of four men. In 1976, 492 carloads were moved over this line

consigned to five customers. The principal commodities moved over the line are: lumber, food stuffs, chemicals and printing paper.

Currently Active Rail Users

West Hanover	Angelo's Supermarkets, Inc.
	Home Gas, Inc.
	United Cabinet
	Unfinished Furniture House, Inc.
	Wes-Pine Millwork, Inc.

4. Impact of Rail Service Discontinuance

a. Economic Impact

The economic impact of the discontinuance of rail service as identified in the July 1975 Massachusetts Rail Study Freight Transportation Survey is shown below:

Loss of Jobs if Rail Freight Service on Line #17 is Discontinued

<u>Present No. of Firms using Rail Service</u>	<u>Present No. of Persons Employed by Rail Users</u>	<u>Job Loss Within One Year Due to Abandonment</u>
5	158	148

As can be seen by the figures, this threatened job loss is serious in light of the existing unemployment in this area and the effect discontinuance would have on the development of new replacement jobs. The Massachusetts Division of Employment Security reports that unemployment in the area as of April 1977 was 7.6%.

b. Industrial Growth

Rockland and West Hanover have active industrial development commissions which are working toward bringing light, rail-using industry to the area. Rail-using industry is preferred to prevent increased truck traffic from being added to the crowded highways in this part of Massachusetts.

The Town of Rockland is a fully sewered community and now has a major parcel of land available for industrial development. The South Shore Chamber of Commerce is working with a number of real estate developers and companies in an attempt to expand the use of freight rail services by current businesses and in new business development.

c. Highway and Bridge Capacity

Route 139 is the main traffic artery through these communities. It is a two-lane highway, 30 feet wide, with no shoulder between Abington and Rockland and a two-foot shoulder in Hanover. Average daily traffic ranges from 6,800 to 15,800 vehicles per mile. The highway passes through residential, business and wooded areas with speed limits of 35 mph and 45 mph. Additional truck traffic in

small volume could be added to the highway, according to the Massachusetts Department of Public Works, but additional volume would aggravate the current heavy traffic conditions.

5. Marketing Plans and Business Interest

The businesses in this area of the Commonwealth are aggressive and particularly community oriented. During our field meetings, references are constantly made to the integral part the business sector plays in the welfare of the community. From this standpoint, then, the rail users have volunteered to work together for the benefit of all by maximizing their use of the line and to establish themselves as examples of what the business community can do to meet the challenge of preserving important rail services.

Examples of local faith in the continuation of service backed up by need are the following: Angelo's Supermarkets, the largest single user of rail services on the line, has expanded its warehouse facilities to accommodate its growing chain of food stores in southeastern Massachusetts; Halliday Lithograph, with its printing location in West Hanover and its warehousing operation in Plymouth, is in the last stages of negotiations for consolidating its operations in West Hanover; Wes-Pine Millwork, Inc., has indicated interest in expanding its product line which could result in increased carloadings of lumber. The remaining users look to traffic growth based on their respective annual growth projections.

Shared Switch Maintenance

Since this line crosses private property, owned by Wes-Pine Millwork, Inc., on which there are three switches, switch maintenance has been a cooperative effort between Wes-Pine and users beyond its site to the end of the line for more than a dozen years. In May of 1977, \$15,000 was spent on rehabilitation. The Executive Office of Transportation & Construction feels this is an excellent example of rail-using businesses cooperating to assure themselves, as much as possible, of continued service on their branch line.

6. Line Disposition

With its excellent prospects for major increases in traffic in the near future, this line merits long-term continuation of freight service. The estimated annual ConRail subsidy for 1977 is \$68,440.

The line is proposed for acquisition by the Commonwealth to eliminate the costly return on investment fee charged to the line and to facilitate rehabilitation of the line under Massachusetts legislation.

Based on USRA's estimate of the net salvage value of the line, the estimated acquisition price is \$154,505 or \$42,918 per mile.

The West Hanover Secondary Track is proposed for rehabilitation to FRA Class II (25 mph) since long-term use appears to be definite. This operating level would lower operating costs and improve reliability and safety.

Line No. 21, East Sandwich to Hyannis

The Hyannis Secondary Track extends from East Sandwich (Milepost 7.5) to Hyannis (Milepost 24.3) in Barnstable County, Massachusetts.

1. Community Description

This rail line provides service to the towns of Bourne, Sandwich and Barnstable. The table below lists the 1975 year-round population and estimated summer population which includes tourists.

<u>Town</u>	<u>1975 Year-Round Population</u>	<u>1975 Summer Population</u>
Bourne	14,971	35,862
Sandwich	7,392	20,132
Barnstable	<u>26,380</u>	<u>59,988</u>
Total	48,743	115,982
Barnstable County	124,564	428,986

2. Physical Characteristics

- a. Length 16.8 miles
- b. Track single
- c. Railroad Location Condition
 Bridges Mill Creek (Sandwich) Fair
 Rte. 6 Under (Yarmouth) Good
- d. Major Route 6A in East Sandwich
 Highway Grade Hyannis Road in Barnstable
 Crossings Route 28 in Hyannis
- e. Track Conditions

Contrary to the USRA recommendations cited in our Phase II Rail Plan, this line requires upgrading to meet the requirements of the Federal Railroad Administration's minimum safety standards of Class I track. However, in view of the more than 1,000 carloads of traffic moving over this line at the present time and our plans to re-establish rail passenger service between New York and Cape Cod in the summer of 1978, rehabilitation is planned to bring the line to FRA Class III track classification.

3. Present Rail Freight Usage

Service is provided Mondays and Wednesdays on Line #21 with local freight L-211 originating in Middleboro and carrying a crew of four. Major commodities carried are lumber, propane gas, sand, stone, packaging materials and plastics.

Currently Active Rail Users

West Barnstable	Barnstable County Supply Company
Hyannis	Cape Maid Farms
	New Bedford Gas and Edison Light
	John Hinckley & Son Company
	Cape Cod Ready Mix Concrete Company
	Myers Furniture
	Suburban Gas Company
	Packaging Industries
	East Coast Paper and Packaging Company

4. Impact of Rail Service Discontinuance

a. Economic Impact

As stressed in our 1976 Rail Plan, the economic impact caused by the discontinuance of rail freight service would result in job losses to more than 150 persons during the first year and to more than 450 persons over a five-year period.

This job loss cannot be allowed to take place considering the persistent unemployment problem on Cape Cod. According to Massachusetts Trends (Division of Employment Security, April 1977), the unemployment rate in Barnstable County is 10.0 percent. On November 13, 1975, Barnstable County was designated a Title IV redevelopment area under the Public Works and Economic Development Act of 1975 as amended. This designation by the US Department of Commerce, Economic Development Administration, will allow all the towns on Cape Cod to apply for EDA grants to encourage local economic development.

b. Industrial Growth

A 200-acre industrial park in Hyannis called Independence Park is ready for occupancy; roads and utilities have already been installed throughout the area.

Success of this park in which Packaging Industries is located is dependent to a large degree on the maintenance of rail freight service. Continuation of rail freight service is vital in order to attract new industry and diversify the economic base of Cape Cod and thereby reduce unemployment caused by a tourist-based economy.

It has been proposed that a siding into this park be constructed from the adjacent rail line. This siding would serve as an alternative facility for some (but not all) of the businesses presently served at Hyannis. This would eliminate numerous repeated switching moves across busy Route 28 in downtown Hyannis with resultant reductions in the time involved serving the local customers. (A significant

benefit would also be realized by the local community which currently must put up with severe traffic congestion due to the rail switching operation.)

Also, the amount of loading space at Hyannis is severely restricted because of the fact that United States Railway Association decided to keep much of the yard area in the hands of the Penn Central Trustees. This is a constraint on existing traffic and will grow considerably more severe as new traffic is generated. The proposed siding at the industrial park would eliminate this constraint.

In total the Cape offers more than 1,300 acres of land for industrial use.

c. Rail Passenger Potential

The tourist industry on Cape Cod provides major passenger potential on Line #21. Total summer population on Cape Cod is about 430,000 of which nearly 130,000 are visitors from New York, New Jersey and the other New England states. Please see actions already taken in preparation for implementation of passenger services as explained in the section entitled Marketing Plans and Special Projects Related to Cape Cod Branch Lines, Page V.25.

d. Highway Capacity

Route 6 is the major highway artery used by truck and auto traffic. This modern six-lane highway carries a range of 3,200 to nearly 22,000 vehicles a day during the year. Given the environmental, energy, and safety impacts associated with traffic volumes of this magnitude, it would decidedly not serve the public good to discontinue rail services and burden the environment to a greater degree.

5. Marketing Plans and Business Interest

6. Line Disposition

See actions taken concerning plans and disposition of this line in the section entitled Marketing Plans and Special Projects Related to Cape Cod Branch Lines, Page V.25.

Line No. 22, Yarmouth to South Dennis

The South Dennis Secondary Track extends from Yarmouth (Milepost 0.0) to South Dennis (Milepost 5.6) in Barnstable County, Massachusetts.

1. Community Description

Line #22 provides service to Yarmouth and Dennis. The table below lists the 1975 year-round population and an estimated summer population which includes visiting tourists.

<u>Town</u>	<u>1975 Year-Round Population</u>	<u>1975 Summer Population</u>
Yarmouth	16,285	48,050
Dennis	<u>8,907</u>	<u>51,499</u>
Total	25,192	99,549
Barnstable County	124,564	428,986

2. Physical Characteristics

- a. Length 5.6 miles
- b. Track single
- c. Railroad
Bridges Bass River Good Condition
- d. Major Willow Street
Highway
Grade Union Street
Crossings
Great Western Road

Total number of grade crossings is seven.

e. Track Conditions

As with Line #21, this line requires upgrading to meet the requirements of the Federal Railroad Administration's minimum safety standards of Class I track. To reach that standard, FRA estimates specify cross and switch tie replacement, bolt and joint bar work, road crossing improvement and ditch cleaning. EOTC has submitted proposals for Class II rehabilitation which project a payback of the marginal extra costs within the FRA guidelines. Please see complete explanation in the commentary on rehabilitation, Chapter 5, section E.

3. Present Rail Freight Usage

This line is served Mondays and Wednesdays as a contiguous portion of Line #21 by train L-211 which originates in Middleboro with a crew of four. The estimated ConRail subsidy covering the operating costs of these two lines is \$109,533.

Currently Active Rail Users

South Dennis	Mid-Cape Center & Nickerson Lumber Mid-Cape Grain
South Yarmouth	Whitehead Brothers Cape Cod Gas Company
Yarmouth & Hyannis	J. Hinckley & Son (two locations)

4. Impact of Rail Service Discontinuance

a. Economic Impact

The economic impact of the discontinuance of rail freight service as identified in our 1976 Rail Plan continues unchanged. Job loss within one year could exceed 145 and within five years exceed 240.

As described in the impact on Line #21, unemployment has been so persistent in this part of the Commonwealth that the area has been designated as a Title IV redevelopment area.

b. Industrial Growth

Yarmouth and Dennis at the present time have major industrial park areas adjacent to the branch line. These towns are attempting to attract new light industry in their efforts to expand their economic bases. Discontinuance of freight rail services would severely hamper their efforts.

c. Highway Capacity

Cape Cod is physically isolated, served by only two highway bridges and a rail bridge. The highway connections are severely congested during peak summer months. The discontinuance of rail service on Lines #21, 22 and 23 would result in approximately 16,700 truck loads on the highways and bridges. Though this additional traffic would not be a major burden nor materially add to existing congestion, it is not desirable. Nor is it wise to further isolate the Cape Cod area by rail discontinuance. This area of Massachusetts is also isolated from the food product, soft goods, home and hospitality product and construction materials distribution sources. The results are that transportation costs become a major factor in determining the consumer price of almost every product used on Cape Cod. Combined with the impact of the persistent high unemployment rate, any inflation in the consumer price index works negatively against the economy of the area.

5. Line Disposition

This line merits long-term continuation of freight service. Factors influencing this conclusion include the physical isolation of the Cape, the impact on the unemployment level, industrial potential and growth potential of present freight rail use.

Line #22 is proposed for rehabilitation to FRA Class I. However, Class II upgrading would result in lower operating costs and improve reliability of the track structure and safety.

The line is proposed for acquisition by the Commonwealth. Please see actions to be taken concerning acquisition in the section entitled Marketing Plans and Special Projects Related to Cape Cod Branch Lines, Page V.25.

Line No. 23, Buzzards Bay to Falmouth

The Falmouth Secondary Track extends from Buzzards Bay (Milepost 0.1) to Falmouth (Milepost 13.8) in Barnstable County, Massachusetts.

1. Community Description

Line #23 provides service to Bourne and Falmouth. The table below lists the 1975 year-round population and estimated summer population which includes visiting tourists.

<u>Town</u>	<u>1975 Year-Round Population</u>	<u>1975 Summer Population</u>
Bourne	14,971	35,862*
Falmouth	<u>19,846</u>	<u>56,532</u>
Total	34,817	92,324
Barnstable County	124,564	428,986

2. Physical Characteristics

- a. Length 13.7 miles
- b. Track single
- c. Railroad
 Bridges Back River (Fair) Cattle Crossing Under (Good)
 Emmons Road (Good) Shore Road (Good)
 Ram Island Road (Good) Scraggy Neck Road (Good)
 Barlow River (Fair) West Main Street (Good)
- d. Major Monument Neck Road
 Highway
 Grade Hanson Road
 Crossings Scraggy Neck Road
 County Road
- e. Track Conditions

This line requires upgrading to meet the requirements of the Federal Railroad Administration's minimum safety standards of 10 mph operation. FRA approved estimates for upgrading to Class I operation include the insertion of more than 1,700 ties, the rebuilding of grade crossings, ballasting and the replacement and tightening of numerous joint bars, bolts and nuts. However, since our goal is to have the lines operating on a self-sustaining basis, we feel Class III operation is the minimal operating standard that can be tolerated on this line for safety and efficiency of operation.

3. Present Rail Freight Usage

This line is serviced by Train L-231, a local freight out of Middleboro. It carries a four-man crew and presently services the line on Fridays.

Currently Active Rail Users

North Falmouth	Otis Air Force Base Veteran's Administration National Cemetery for New England Anti-Ballistic Submarine Radar Installation U.S. Coast Guard 200-Mile Fishing Limit En- forcement Headquarters
Falmouth	Falmouth Lumber Company The Grain Mill Wood Lumber Company

The U.S. Department of Defense is totally committed to continued use of coal in the Base Central Heating Plant at Otis Air Force Base. The installation of \$1 million of required environmental controls will be completed by October 1977 and a design for a heat distribution system will be completed during the coming year. Also, in this connection, work has been completed which extended the Air Force-owned rail system on the base to improve coal handling procedures as well as to improve methods of handling other materials. The latter work involved an additional investment of nearly \$250,000.

4. Impact of Rail Service Discontinuance

a. Economic Impact

The economic impact of the discontinuance of rail freight service as identified in our 1976 Rail Plan remains unchanged. Jobs lost within one year would be approximately nine; however, the loss would have to be projected to more than 400 during a five-year period based on estimates of new permanent jobs becoming available with new Federal projects being built and manned (see section b below) and with a new handicrafts shop complex being considered on the grounds of Otis Air Force Base.

b. Industrial Growth

Four major new facilities are presently being planned on the Otis Air Force Base complex: (1) a Veteran's Administration National Cemetery for New England; (2) an anti-ballistic submarine launching radar system to service the eastern coast of the United States; (3) Coast Guard headquarters for enforcement of the 200-mile fishing limit; and (4) handicrafts shop complex.

Phase I of the Veteran's Administration National Cemetery, which is estimated to cost \$1.8 million, will be constructed on a 785-acre site beginning in September of 1977. After a phased development lasting five years, it is estimated that 100 year-round employees

will be needed at a total annual payroll of about \$1 million.

The radar installation is part of the anti-ballistic submarine launching radar system for the east coast. Another site is being planned for the Pacific coast. Construction is underway and total construction costs are estimated to be \$20 million. About 100 to 175 year-round employees (90 percent civilian) will be required at the radar installation.

The Coast Guard, in implementing its mission to enforce the 200-mile fishing limit, will become a rail freight service user. The number of fixed-wing and helicopter aircraft and personnel is expected to double as their role is made fully operational. The increase in air flights demands additional aviation fuel which will be brought in by rail tank car. Employment at the facility is projected to increase from 230 persons to more than 450.

The handicrafts shop complex will provide all Cape Cod craftspeople with a warehousing, purchasing and accounting facility from which bulk purchases can be made by wholesale buyers and for retail purchases by Cape Cod residents and visitors. The complex will also offer training in the various crafts skills. Covering 25 to 35 acres of land, the complex is expected to open in 1978.

c. Rail Passenger Potential

The tourist industry on Cape Cod provides a major passenger potential on Line #23 as the total summer population on Cape Cod is 430,000. The line also offers the long-term potential of serving Woods Hole from which steamship service is available year-round to Martha's Vineyard and Nantucket Island.

d. Highway Capacity

The problems of traffic congestion and the potential of exceeding highway capacity over the Sagamore and Bourne Bridges as described in Line 22 also applies to the Falmouth Secondary Track.

5. Line Disposition

The line merits long-term continuation of freight service. Factors influencing this conclusion include the growing rail traffic to Otis and the likelihood of future growth, the physical isolation of Cape Cod, the employment impact and our goal for rail passenger service to Falmouth and Cape Cod in general.

The estimated annual ConRail subsidy cost is \$30,050. See further explanation in following section entitled Marketing Plans and Special Projects Related to Cape Cod Branch Lines.

Line No. 33, Forest Hills to Needham Junction

This portion of the Needham Branch extends from Forest Hills (Milepost 3.3) to Needham Junction (Milepost 10.1) in Suffolk and Norfolk Counties, Massachusetts.

1. Community Description

This line is located in the south and southwest portions of the City of Boston.

2. Physical Characteristics

- | | |
|---------------------|--|
| a. Length | 6.8 miles |
| b. Track | single |
| c. Railroad Bridges | 12 over and under major roads and the Charles River. |
| d. Grade Crossings | Not available. |
| e. Track Conditions | |

This line is part of the commuter rail system in the Greater Boston Metropolitan area and, therefore, requires no upgrading to meet FRA Class I standards.

3. Present Rail Freight Usage

At the present time this line receives no rail freight service.

4. Impact of Rail Service Discontinuance

a. Economic Impact

This line served one rail-using industry which also makes heavy use of trucking. Because trucking appeared to be a reasonably adequate alternative, the line was designated in the State Rail Plan prior to the April 1, 1976, ConRail start-up for operation only if the industry contributed to the subsidy. At the time, the industry did not do so. However, the industry now feels that rail service is essential if it is to keep this facility active and to develop it. Thus, the industry is now willing to contribute to the subsidy. The facility employs 200 people. Preservation of these jobs in the Boston area is in conformance with the state policy seeking to improve the economic health of the industrialized areas of Massachusetts.

b. Rail Passenger Potential

This line is owned by the MBTA and is currently used for rail passenger commuter service operated by the Boston & Maine under contract to the Massachusetts Bay Transportation Authority. The continuation of this passenger service would not be affected by the re-institution of freight service.

MARKETING PLANS AND SPECIAL PROJECTS RELATED TO THE CAPE COD BRANCH LINES

Cape Cod represents a unique phenomenon in the Commonwealth within the perspective of an area of continued population growth faced with large swings in unemployment levels. While increases in population should result in the growth of the business sector to provide goods and services, job opportunities have not kept pace with the pace of population increases. To compound the employment problem further, the tourist season brings great demand for short-term employment--jobs often filled by young people from areas other than the Cape.

This summer, Cape Cod faces an unemployment level of more than 10 percent. With the acquisition of the Cape rail lines by the Massachusetts Bay Transportation Authority, the Executive Office of Transportation and Construction in cooperation with the Cape Cod Planning and Economic Development Commission has put ten formerly unemployed men to work clearing brush from the rights-of-way and from grade crossings. This CETA program continued with a new ten-man crew this July.

1. CETA (Comprehensive Employment Training Act) Grant

The men work under an annual CETA grant and are selected from men applying to the local Division of Employment Security Job Bank. The work is supervised by a ConRail track foreman employed under the maintenance of way section of our subsidy contract with Con-Rail.

The benefits from this program have been improved crew safety, improved highway crossing safety, reduced brush damage to shipments carried in open flatbed rail cars and employment for ten men who otherwise would have remained unemployed during the past year.

The project is expected to last until September 30th. Over the longer term, the clearance project makes way for the rehabilitation plans for upgrading the track to 40 mph freight operation and eventual passenger service from New York and from Boston.

2. Acquisition of the Cape Branch Lines

At the present time, the Massachusetts Bay Transportation Authority holds title to the three former Penn Central rail lines, purchased under Section 206(c)(1)(D) of the Regional Rail Reorganization Act for \$307,655. Since these rights-of-way are far outside the MBTA District and are appropriately part of a state program, the EOTC plans to acquire these lines from the MBTA at the time EOTC acquires the other rail rights in the Commonwealth.

5. Line Disposition

This line has been designated for resumption of rail freight service under an agreement with the former user of freight rail service, United Liquors, Ltd., wherein the company will pay \$5,000 annually toward the cost of deficit service which is estimated to be approximately \$15,000 per year for once-a-week service. Service will be provided by ConRail from Needham Junction (Milepost 10.1) to United Liquors' facility located approximately at Milepost 6.0. It is planned to resume service as soon as the necessary agreements between the rail user, the state and the operator can be finalized. Early September appears to be the likely start-up time.

The company estimates that it will receive 100 carloads per year of alcoholic beverages initially. Strong potential exists for growth of this traffic with resulting possible elimination of the need for rail freight operating subsidy in future years.

EOTC's recent inspection of the company's side track showed the track structure and switch to be sound and apparently capable of handling the company's projected traffic with routine maintenance.

B. Acquisition/Rail Banking Program

Generally, this Office believes that railroad rights-of-way deserve preservation and protection from indiscriminate dismemberment by sale of sections of rights-of-way or construction thereon. Once dismembered, they can be extremely difficult to reassemble for uses requiring such linear rights-of-way--transportation, transmission lines or recreation. Furthermore, on lines for which operation will be continued, acquisition will result in savings of the annual return on investment fee which must be paid to the present rail line owners.

Included in this rail bank program are five line segments which had been proposed in the December 1975 edition of the State Rail Plan for continued operation if the rail users would commit to funding a portion of the operating deficit. No rail users were willing to make such commitments, thus freight service on these lines was not continued. Rather, these lines will be acquired to preserve them for future possible use.

The lines designated for highest priority acquisitions are those on which service has not been continued. These are accorded priority¹ A1 through A5 (highest to lowest) in ascending order of their estimated price per mile. Prompt purchase of these lines will prevent their actual physical abandonment and the removal of ties, rail and other essential feature. The total expected acquisition cost is approximately \$955,115 (in 1976 dollars, based on USRA estimated net salvage value).

The second priority¹ for acquisition is the lines on which service is being continued, designated Group B and listed in descending order of priority by estimated cost per mile. The total estimated cost for acquiring these lines is \$2,146,162. (See Chapter VI, Table II.)

Other than the cost of the Cape Cod lines purchased for EOTC by the Massachusetts Bay Transportation Authority and for which the MBTA will be reimbursed by EOTC, estimates listed in Table II for acquisition are not based on actual real estate appraisals. This Office will enter into negotiations with the present owners for acquisition at the net salvage value level. There is some reason to believe that actual appraisals will show the estimates used herein (which are derived from USRA figures) to be high.

This Office is currently processing a review of Penn Central properties which have been made available for sale by the estate of the former railroad. Properties which have a potential for transportation, recreation or conservation will be acquired.

The Boston & Maine Corporation has also been supplying this Office with applicable information about parcels of that railroad's property which are available for purchase.

Our acquisition of railroad, and former railroad, properties is further detailed in Chapter V.³⁵, wherein Massachusetts General Laws 161C section 7 and Chapter 40 section 54A are outlined as they relate to preservation of these properties in the public interest.

¹The priority contained herein is based on the concept that the subsidized lines are temporarily preserved by the fact that subsidized service exists.

DESCRIPTION OF BRANCH LINES WHICH ARE TO BE ACQUIRED FOR
RAIL BANKING PURPOSES

This section presents the Commonwealth's program of acquisition of rail rights-of-way for "rail banking," i.e., for future restoration of rail service or other transportation use.

Existing rail rights-of-way in a heavily developed state such as Massachusetts often represent precious assets which would be very difficult and expensive to reassemble or reproduce once dismembered. For instance, some pass through heavily industrialized areas where future development may require rail service. Others pass through areas which are in the earliest stages of transition from semi-agricultural to light industrial development where it is important that the potential for service not be threatened by loss of these transportation corridors.

Where rail passenger service becomes a viable and more attractive alternative to highway expansion, rights-of-way which can be used for passenger transport should be retained to save cost, time and the hardships of highway expansion.

For these reasons, and with the aid of the federal and state funding available for these purposes, the EOTC proposes to acquire the rights-of-way identified in this section of the Massachusetts State Rail Plan. (See Chapter VI, Table II.)

Line No. 6, Millbury to Millbury Junction

The Millbury Branch extends from Millbury Junction (Milepost 0.0) to the Town of Millbury (Milepost 2.7) in Worcester County, Massachusetts.

Prior to January 1975, the line was used to service two rail users: New England High Carbon Wire Company and the A. D. Windle Company.

In its data gathering, the Executive Office of Transportation and Construction learned that there are 28 acres of industrially zoned land with rail and highway access in Millbury. Millbury is a satellite city of Worcester, a principal metropolis of Massachusetts and a major interchange, destination and junction of rail traffic. The industrial acreage is a valuable asset for Millbury and this branch line.

The Commonwealth proposes to acquire the Millbury Branch to rail bank it for potential transportation use. The estimated acquisition cost, based on USRA-supplied data, is \$105,370.

Line No. 19, Westdale to East Bridgewater

The East Bridgewater Secondary Track extends from Westdale (Milepost 0.0) to East Bridgewater (Milepost 1.9) in Plymouth County, Massachusetts.

1. Community Description

This community is located south of Boston in an area which is experiencing a growth in population. Its economic base incorporates agricultural activity and light industry.

2. Physical Characteristics

- | | | | |
|----|------------------|---|------|
| a. | Length | 1.9 miles | |
| b. | Track | single | |
| c. | Railroad Bridge | Over the Matfield River (MP 1.11), fair condition | |
| d. | Grade Crossings | Route 106 | Fair |
| | | Spring Street | Poor |
| | | Union Street | Fair |
| | | Central Street | Poor |
| e. | Track Conditions | | |

This line would require upgrading to meet the requirements of the Federal Railroad Administration's Class I standards of a maximum operating speed of 10 mph. The USRA had estimated the cost of rehabilitation to FRA Class I to be \$25,000.

3. Present Rail Freight Usage

Prior to conveyance, this line had been serviced one day a week by train BX14 out of South Braintree employing a crew of four men.

4. Impact of Rail Service Discontinuance

The Board of Selectmen of the Town of East Bridgewater and its Industrial Development Commission have met with us to stress the importance this branch line has for industrial development in the town.

5. Line Disposition

The full line (1.9 miles) is proposed for acquisition by the Commonwealth to protect and preserve rights-of-way which offer the potential for use as transportation corridors, recreational areas or utility rights-of-way and to protect the option for rail-based industrial development. Based on USRA's estimate of the net salvage value of the line, the estimated acquisition price is \$83,033 or \$43,700 per mile.

Lines No. 29, Cedar to Wrentham, and No. 30, East Walpole to Cedar

Line No. 30 extends from East Walpole (Milepost 2.3) to Cedar Junction (Milepost 6.0) in Norfolk County, Massachusetts. Line No. 29 extends from Cedar Junction to Wrentham (Milepost 15.7) also in Norfolk County. Both are contiguous portions of the Wrentham Secondary Track.

1. Community Description

The communities located on these lines are Wrentham and Plainville which are not dependent on the lines for maintenance of the economic base. However, the lines have taken on more importance since the discovery of coal in southeastern Massachusetts and the resurgence of building construction in the Commonwealth. The lines also offer potential for future commuter rail service.

2. Physical Characteristics of Line No. 29

- a. Length 9.7 miles
- b. Track single
- c. Railroad Seven over culverts and roads in fair to
Bridges good condition.
- d. Grade Not available
Crossings
- e. Track Condition

The USRA had estimated the cost to upgrade this line to FRA Class I operating standards to be \$248,970.

3. Former Rail Freight Usage

Neither line receives service at the present time. Line No. 30 was used only as a bridge (for carrying traffic that did not originate or terminate on it) connecting to Line No. 29.

The former rail freight users on Line No. 29 were:

Wrentham Sand and Gravel
Masslite Concrete
Northeast Concrete Products
Simeone Stone Corporation

4. Line Disposition

This portion of the Wrentham Secondary Track does not receive freight rail service. However, because of the potential for use by the former users and to protect the right-of-way from dismemberment, the Commonwealth proposes to acquire both lines. Based on the USRA's estimated net salvage value, the estimated acquisition price of Line 29 is \$330,167 and that of Line 30 is \$133,861.

Since these lines are considered to be acquired for purposes of rail banking only, no rehabilitation is planned.

Line No. 54, Westfield to Southwick

This portion of the Holyoke Secondary track extends from Westfield (Milepost 31.7) to Stateline (Milepost 23.8), Massachusetts.

1. Community Description

This line formerly provided service to the Town of Southwick, located in southwestern Massachusetts, which is undergoing a transition from a tobacco farming economy to light industry. The table below illustrates the population.

<u>Town</u>	<u>1970 Census</u>	<u>1975 Estimate</u>
Southwick	6,330	7,220

2. Physical Characteristics

- a. Length 7.9 miles .
- b. Track single
- c. Bridges Little River, Westfield
- d. Grade Seven public crossings, six of which are
Crossings protected by automatic gates.
- e. Track Conditions

The USRA had estimated the 1973 cost to upgrade this line to FRA Class I operating standards (a maximum of 10 mph) at \$129,610.

3. Former Rail Freight Usage

This line receives no service at the present time. The former rail users were:

Southwick Fred B. Arnold & Sons
 Can-Pak Corporation
 Gilbert S. Arnold Tobacco Co.
 Battistoni Lumber
 Robert F. Arnold Tobacco Co.
 Pioneer Dairy, Inc.
 Cul-Bro Tobacco Division, General Cigar Co.

4. Impact of Rail Service Discontinuance

- a. Economic Impact

The EOTC undercovered no direct job loss if rail service were discontinued.

- b. Highway Capacity

The Massachusetts Department of Public Works reports that Route 202, which parallels the rail line, is a two-lane undivided

highway with horizontal curves. Route 202 is currently used as a minor truck route.

5. Line Disposition

Because the Town of Southwick felt that rail service would make industrial development in the area more attractive and because the line is a north-south link through Connecticut to the Shore Route, i.e., a complete link for north-south traffic, the full line (7.9 miles) is proposed for acquisition by the Commonwealth. This acquisition will protect and preserve the right-of-way and offer the potential of use as transportation corridors, recreational areas, utility right-of-way and protect the option for rail-based industrial development. Based on USRA's estimate of the net salvage value of the line, the estimated acquisition price is \$302,684 or \$38,314 per mile.

C. Other State Programs Relating To Preservation Of
Rail Rights-Of-Way

Two programs (based on provisions of the Massachusetts General Laws) have been instituted to preserve rail rights-of-way and other rail property for eventual transportation use. It is the policy of the Executive Office of Transportation and Construction that all such properties should be preserved whenever there is any reasonable indication that they will be needed for future use. Where necessary, public acquisition of the property is used to carry out this policy.

These two programs are in addition to the major acquisition program under which an active effort is being made to acquire rights-of-way through negotiated sale.

The Chapter 161C, Section 7 program has been underway since early 1976. Under the statute, the Commonwealth has a 90-day right of first refusal on any sales by railroads of land, track or other rail facilities. The statute forbids sale to others at terms more favorable than those offered to the Commonwealth. The effect of Chapter 161C, Section 7 is that the Commonwealth has a final opportunity to purchase the property even though the property had not been the subject of negotiations between the Commonwealth and the railroad. While acquisition under this statute is less desirable than orderly negotiated purchase, it does prevent the permanent loss of the property.

Under the Chapter 161C, Section 7 program, offered property is immediately analyzed by the Executive Office of Transportation and Construction for possible value to the rail program. At the same time, various other state and local governmental agencies are notified of the availability of the property. If the property is desired for rail uses, appropriate funding is obtained, and the property is acquired. If no rail use is desired, but some other governmental use is indicated, the agency desiring the property is designated to exercise the rights of first refusal by dealing directly with the railroad. If no governmental use is indicated, the right of first refusal is declined and the railroad is free to sell the property.

The Chapter 40, Section 54a program concerns building permits on any property that was ever used for railroad purposes. Chapter 40, Section 54a is significant because it even applies to property that is no longer in railroad ownership. Under this statute, no person may obtain a building permit on the rail (or former rail) property unless the Massachusetts Secretary of Transportation grants permission after a public hearing.

When application for a building permit is made, the local permit-granting authority notifies the Secretary and requests appropriate permission. The Executive Office of Transportation and Construction analyzes the property and determines whether the proposed construction will in any way interfere with possible future rail use. At the same time, the Massachusetts Department of Public Works holds the required public hearing. Subsequently, a decision is made by the Secretary whether or not to grant permission for the issuance of the building permit.

D. Special Projects

Several projects, other than subsidized service, are underway or are planned using Title IV funding.

A. Rehabilitation

Rehabilitation of all subsidized lines to at least 25 mph standards is anticipated. Rehabilitation of the Falmouth and Hyannis lines to 40 mph standards is anticipated. Applications have been submitted to FRA concerning the Falmouth, South Dennis, Hyannis and Ware River Lines. An application concerning the Lowell Line will be submitted in August of 1977.

B. Restoration of Run-Around Tracks

Run-around tracks exist but are out of service at West Barnstable and North Falmouth. The West Barnstable run-around is necessary for efficient switching of industrial customers in the area. The North Falmouth run-around is necessary as an interchange with the US Government switching service at Otis Air Force Base. Now that the run-around is not in service, it is necessary for ConRail to deliver the cars to the base itself, a round-trip distance of six miles via a very steep grade which often requires that more than one round trip be made. An average of 1½ hours can be saved each time the run-around at North Falmouth is used.

C. Siding and Transfer Track at Hyannis/Yarmouth

A major portion of the rail yards at Hyannis remained with the Penn Central Estate rather than being conveyed (as the Commonwealth requested) to the Commonwealth. The result is a very congested yard operation at Hyannis with little room for expansion. The principal user on Cape Cod uses the yard as a team track area and has problems with the congestion. Highway access to the yard is quite congested,, and the extensive switching operations repeatedly block the principal roadway thereby increasing the congestion.

Less than two miles north of Hyannis, a major new industrial park is located adjacent to the rail line and adjacent to an interchange of the Mid-Cape Highway which serves areas to the east no longer reached by rail. The principal user of rail freight service on Cape Cod is located in this park.

It is proposed to construct an industrial spur (probably less than one mile in length) into the industrial park with a team track, covered loading platform and bulk transfer facility. This will greatly simplify switching operations at Hyannis by diverting the largest users. Ample opportunity will then exist for expansion of service to new customers. Problems of limited siding capacity at Hyannis will be eliminated. The effect on local road congestion will be most favorable.

D. Restoration of Wye at Buzzards Bay

The wye at Buzzards Bay was originally part of the ConRail system, but was returned to Penn Central. Exercising Chapter 161C, section 7,

of the Massachusetts General Laws, the Executive Office of Transportation and Construction designated the Town of Bourne to acquire the property for the same price that had been offered to a private buyer. The Town has exercised the option and has agreed to sell the portion of the property necessary for rail purposes to the Commonwealth. The restoration of this wye (much of which is intact) would greatly simplify operations of trains on the Cape Cod subsidized lines. Under a proposal to designate a short-line operator (rather than ConRail) to provide the subsidized service, the wye becomes necessary.

It is proposed to acquire and rehabilitate this property with Title IV funds.

E. Lowell Line Industrial Sidetracks

Three principal users of the Lowell line currently share a single sidetrack. This results in major problems because of the limited (and unexpandable) capacity of this track. For this reason, the subsidized service requires nearly twice as many trips than would be needed under ideal conditions.

It is proposed to construct sidetracks at the locations of the two rail users that now share the third user's sidetrack. Major funding will be provided by the users to be refunded according to standard rail industry practices.

E. Rehabilitation Policy And Program

The six lines presently being subsidized in Massachusetts are all vital. Service is expected to continue indefinitely. Every effort is being made to make each of these lines viable. The commitment of Massachusetts is significant--three lines have already been purchased by the Commonwealth, and negotiations are underway for purchase of the other three.

Accordingly, all decisions concerning rehabilitation consider the fact that these lines will be in service for the foreseeable future. In general, this justifies much more ambitious rehabilitation than would be justified in situations where the line was scheduled to be abandoned within a known time or where the future of the line was in doubt.

In determining the level of rehabilitation to be achieved, four factors are considered:

1. Direct Program Benefits: Higher rehabilitation standards result in significant reductions in various subsidy costs. Higher operating speeds reduce time spent on the line thereby decreasing most transportation costs including crew costs and costs related to locomotive hours. The chances of violation of the "hours of service" law are reduced thereby decreasing instances of very expensive recrewing. A program of maintenance can be instituted which is much more cost-effective than spot maintenance work done on an "as-needed" basis. In many cases, the designated operators can schedule more work for the train on its own system thereby decreasing the chances of situations where no non-subsidized work is done with the subsidizer bearing all costs of operating the train from the terminal rather than merely bearing the costs of operating on the subsidized line alone. In some cases it is even possible to perform the operation of two or more subsidized lines in a single day because of higher operating speeds with dramatic subsidy savings. All of these savings must be considered for an extended period of time in cases where service is expected to continue indefinitely. The longest possible payback period is appropriate in analyzing these benefits.

2. Ability To Serve New Business: In general, service on subsidized lines has suffered from years of neglect. All possible business has been driven to other modes. With reasonable service and a concentrated marketing effort, much of this lost traffic can be recaptured with a very favorable impact on the financial viability of the line. (In some cases, even a modest increase in traffic will make a line profitable.)

Yet, in several cases, slow operating speeds make it impossible for the train to serve any of this additional traffic thereby dooming the line to failure. Higher rehabilitation standards are, therefore, justified when they enable the serving of significant new traffic which could otherwise not be served.

3. Shipper Confidence: Potential new traffic on subsidized lines exists in the form of industry which will either expand existing facilities or open new facilities. Conversely, present traffic can be lost if shippers elect to relocate away from the line rather than invest additional funds in an existing facility. In either case, the decisions by the shipper involve long term decisions to invest major sums of money in facilities which are largely fixed and which are often dependent on rail service. Confidence by the shipper that rail service will continue is absolutely necessary. Such confidence can take several forms: public ownership of the right of way, long term commitments by the subsidizing authority, and reasonable physical condition of the track itself. Few prudent businesspersons, for example, will invest in any rail-dependent facility that is located on a line that is merely being held at 10 mph standards by a spot maintenance program. Shipper confidence is vital to the long-term viability of any subsidized line, and shipper confidence is extremely dependent on a reasonable rehabilitation program.

4. Other Indirect Benefits: The very existence of the rail service continuation program clearly indicates that direct financial benefit to the program, itself, is not the only criteria by which program spending should be justified. (Obviously, if it were the only criteria the immediate cessation of all program projects and subsidies would be appropriate because such cessation would reduce program costs to zero thereby maximizing direct financial benefits to the program.) Accordingly, it is appropriate to consider benefits outside the program as justification for a rehabilitation project if these benefits can be expected to vary as a result of the project. Such benefits include:

- A. Energy savings
- B. Environmental benefits
- C. Creation of jobs
- D. Increases in income and sales taxes
- E. Decreases in welfare and unemployment costs
- F. Reductions in traffic congestion
- G. Public safety

All six branch lines have been or are being analyzed to determine the most appropriate level of rehabilitation. Presently, all lines are at or below FRA Class I (10 mph) in parts. Because of their proximity, the three Cape Cod lines (Falmouth, Hyannis, and South Dennis) were analyzed in conjunction with each other. Analysis of the Ware River line has been completed. Analysis of the West Hanover and Lowell lines is still underway.

On the Cape Cod lines, it turns out that major operational savings exist if the longest two lines (Falmouth and Hyannis) are upgraded to 40 mph standards and if the shortest line (South Dennis) is upgraded to 25 mph. At these speeds, all three lines can be operated (in addition to ConRail's non-subsidized work between Middleboro and Cape Cod) in one day rather than the present situation where either the Falmouth line or the Hyannis and South Dennis lines can be operated within the time limits imposed by the hours-of-service law. The result is that the present level of service (once per week to Falmouth; twice per week to Hyannis/South Dennis) is possible with two weekly trains rather than the present three. Operating time on the subsidized lines would be reduced by more than 50% with significant subsidy savings. The corresponding reduction by ConRail of its services between Middleboro and Cape Cod would reduce the ever-increasing frequency of days when the subsidized operation absorbs all costs because no non-subsidized work is done. Maintenance costs would actually be less under a fixed program rather than the present costly spot maintenance procedure. Certain equipment costs would be reduced. Fuel (energy) requirements would decrease because of elimination of wasteful operation of the locomotive at low speeds. There would be a corresponding reduction in pollution. The ability to handle considerable new traffic will exist (presently this ability is quite limited). Shipper confidence would be maximized, and the Commonwealth's efforts to generate new traffic on these subsidized lines would be reinforced.

Quantifiable direct benefits to the program exceed 150% of the costs of this project on a discounted cost flow basis.

On the Ware River Valley line, rehabilitation to 25 mph standards is a necessity if the entire line is to be operated. (Presently a portion of the line is out of service, although there is significant demand for rail services along that portion.) Restoration of the line to any level below 25 mph standards would result in frequent violation of the hours-of-service law even if the designated operator (ConRail) does no non-subsidized work. At 25 mph standards, adequate capacity would exist for the existing traffic and the known demand on

the presently "out-of-service" portion with the additional ability to handle additional traffic as it is generated by the Commonwealth's marketing effort. Equally important, there will be time for ConRail to perform non-subsidized work between the terminal at Springfield and the beginning of the subsidized line at Palmer thereby eliminating the major cost of subsidizing the train all the way from the terminal.

Quantifiable direct benefits to the program total far in excess of the costs of attaining 25 mph standards.

The resulting shipper confidence is all-important. Existing shippers face major plant investment decisions in the next few years. Without the firm commitment of higher than 10 mph track rehabilitation, these decisions are certain to be against the investment. The effect will be lost traffic on a rail line that needs more traffic and lost jobs in an area already characterized by high unemployment.

F. Program Operations

Proper functioning of subsidized rail services and other aspects of the Title IV program require a new day-to-day effort known as program operations. Elements of this effort include the following:

Accounting-- All federal grants, state funds and third party funds plus all "in-kind" benefits must be correlated with the appropriate lease, subsidy, maintenance, rehabilitation, purchase, personnel, consultant and fringe costs.

Car Supply--Insuring that the designated operator of subsidized rail service provides adequate empty cars to shippers has proven to be a task requiring an on-going effort between the operator and the subsidizer. Major improvements are being made to a previously inadequate situation.

Contracting--All construction work, rehabilitation and other work must be contracted with various construction firms. Standard state contracting procedures are modified when necessary to conform with the special requirements of a rail program. Care is taken to conform with applicable federal requirements including affirmative action procedures.

Data Collection--Records must be gathered from the operators of subsidized service and shippers. All projects must be monitored on a day-to-day basis.

Grant Administration--Various administrative functions are necessary to properly control the program and to satisfy requirements imposed by the Federal Railroad Administration.

Marketing--Typically, subsidized rail lines have suffered years of neglect physically, servicewise and from a marketing viewpoint. With improvement of the physical plant and service quality, it is possible to mount a marketing effort to return lost traffic to the line. Numerous contacts with shippers and potential shippers (plus help from the marketing departs of railroads that connect with the designated operator) are beginning to result in new business. The process is slow, but it is vital to the goal of making these lines viable.

Negotiations--Extensive negotiations take place with the designated operator regarding subsidy contracts and with the owner of the rail line regarding lease provisions.

Operations Monitoring--All operations of subsidized service must be monitored frequently (including rides in subsidized trains) to insure sufficient quality of service without unreasonable costs.

Supervision of Projects--On-site supervision is required for most major projects.

Trouble Shooting--Day-to-day problems occur in subsidized operations which are not handled by the local management of the designated operator unless the staff of the Executive Office of Transportation intervenes.

G. Marketing the Subsidized Lines

EOTC has undertaken a marketing effort guided by a two-part philosophy. The first is to increase the value of the subsidized lines to the Commonwealth (in terms of enhancing the value of the lines as part of the railroad system). The second goal is to increase the value to the local communities served by each line (in terms of providing the railroad transportation service needed by local industries that are essential to these communities). In general, this means increasing traffic moved and improving the lines' profitability (which really means trying to reduce the subsidy).

The marketing efforts have involved a three-phase approach. The first effort concentrates on the current users of the railroad; the second phase involves identifying users of transportation services that are not currently utilizing railroad service; and the third is to develop new markets.

1. Current Users

There are two parts to the traffic of current users. The first part involves the traffic currently moving over the lines. How this traffic moves can have a significant impact on the operational economics of the LDL, and marketing efforts have been directed to optimize these movements. That is, for a given traffic movement, the attributable revenues to a LDL and the reimbursement to ConRail depends on how the traffic moves. In general, the following maxims apply:

1. Traffic originated on ConRail is preferable to carloads originated on another railroad.

Reason: Revenues increase much more than expenses.

2. For traffic originated or terminated on another railroad, maximizing the miles traveled on ConRail is preferable (called "long-hauling" Conrail).

Reason: Again, revenues often increase more than expenses.

3. For any traffic handled, the heavier carload is preferable.

Reason: The reimbursement to ConRail depends more on the fact that a carload is moved and less on the fact of its weight. However, revenues depend more on the weight than anything else. Thus, as the carload weight increases the attributable revenue increases much more quickly (often 2-4 times) than expenses.

By applying these maxims to the traffic on a LDL, the traffic movements are optimized which can reduce the subsidy paid to ConRail. Because ConRail is compensated through the reimbursement schedule, ConRail is no worse or better off. And because a user of a LDL pays the same rate, the user is also no better or worse off. However, the operational economics have significantly improved.

In the marketing efforts, EOTC does not apply these maxims without question, but rather analyzes each repetitive carload movement to find out what the optimal movement is. For instance, a very light car can generate so little revenue that costs are not covered no matter what. This could lead EOTC to determine that the shortest movement on ConRail is the best because it minimizes the loss.

Another result of this carload analysis is that EOTC has questioned the widely held belief in the railroad industry that more carloads is better. Specifically, many of the lightly loaded cars are unprofitable to move (attributable revenues are less than the expense or reimbursement to ConRail). Thus, EOTC is encouraging the rail users to receive or ship heavier cars, and to consider combining cars wherever possible. A solution for most traffic is simply increasing the car size, from the typical 40' car length to the newer cars that are 50' long. In general, the revenues increase much more than do expenses, thereby making the traffic profitable for the LDL. Thus, while EOTC is encouraging more traffic, it is encouraging a more profitable traffic mix and not blindly encouraging carloads for the sake of increased numbers. This will result in fewer carloads being moved, but not a reduction in the tonnage moved.

For instance, one receiver of traffic on LDL #17 receives about 120 carloads per annum, usually in 40' cars. If this same traffic is put into 50' long cars, this same traffic would move in 96 cars. However, instead of each carload contributing little, if anything to the viability of the line, each carload will contribute about \$50. (This means about \$4,800 improvement in the LDL economics from just this change with 25% of the traffic.)

The preceeding is not meant to be a definitive explanation of the economics of the LDL and its relationship to traffic movements, but to convey an idea of efforts to improve the financial operation of the line through determining optimal movements. EOTC must then "market" these ideas to the users of the line. Only through close coordinated efforts between the users and EOTC can the benefits of optimal movement be achieved.¹

¹The value in optimizing movements varies with each particular movement. The typical range is from \$20-\$80 per carload improvement in its contribution to the LDL. While it is hardly worthwhile to worry about this contribution on the occasional movement, it is important where repetitive movements of 50-100 carloads are involved. Based on about 2000 carloads handled on all the LDL's and say about \$30 per carload, these efforts could reduce LDL costs about \$60,000 per annum.

The second part of the marketing efforts for current users involves increasing their utilization of rail to the maximum extent possible. Review of the traffic patterns of many of the railroad users indicates that each utilizes rail and truck movements based on the relative service and cost characteristics of railroad versus truck delivery. By understanding these differences, and then trying to improve the relative advantage of rail, the movements will then have a chance to move by rail.

The lines on Cape Cod have been the trial ground for this marketing effort. With the base of about 1,000 carloads on Lines 21/22, about 125 more carloads are possible because the rates are better than truck but the service is poorer. Overcoming the service constraint and then marketing this change is the effort needed to make things happen.

But working with the current railroad users by improving the traffic movements and increasing their movements by rail has definable limits. Only by developing new railroad customers and new markets can the maximum value of the railroad line be achieved.

2. New Railroad Users

There are markets for railroad service that are waiting to be tapped. EOTC is working on a marketing effort aimed to tap additional traffic for the railroad lines where the following conditions are met: (1) significant tonnages; (2) easily identifiable market; and, (3) where the economics are in favor of rail movements (either current rates or competitive rates could be introduced).

Because of limited staff resources, EOTC must approach this marketing very selectively. EOTC is giving first priority to those movements where other railroads than ConRail participate in the new traffic. There are two reasons for this. ConRail has no economic incentive in helping to solicit traffic for the LDL because it only gets its expenses for moving traffic and hence no profit. There is even often a conflict of interest situation because a new user of rail often could use either ConRail or the LDL; experience has already shown that ConRail solicits traffic away from the LDL. The second reason is that the other railroads have their own economic interest in developing new traffic and hence are motivated in helping EOTC increase carloadings on the LDL. Working with other railroads leverages EOTC's limited staff resources.

The soliciting of new traffic is still in its formative stages. However, additional traffic already seems possible. For example, there seems to be about 125 carloads of construction commodities that could terminate on the Cape Line 21/22. But more than this is necessary and only in the long term, as new markets are developed, will the individual LDL achieve its full potential to the Commonwealth and the local communities that it serves.

3. Developing New Markets

As the economic region that each LDL serves changes, it will be necessary to keep in step with these changes and aid those that are particularly important to the LDL. A close liaison between various agencies of the Commonwealth act to provide information about what is occurring; continuation of these efforts will yield benefits in the long term.

4. Summary

The Commonwealth is making a long-term commitment to the railroad lines being operated under subsidy. One way that it demonstrates it is by engaging in marketing efforts to develop necessary traffic to ensure the long-term viability of these lines.

CHAPTER VI

TABLE I: OPERATING SUBSIDY PROGRAM (in descending order of priority)

Line	End Points	Miles	Shippers	1976-77 Annual Carloads	Direct ¹ Job Loss	Estimated Annual ² Subsidy (1977 dollars)		Proposed Trips per Year	
						Operations	Lease		
I. To be continued with Massachusetts funding non-federal share of subsidy.									
17	N. Abington-W. Hanover	3.6	5	492	148	\$ 68,440	\$ 8,910	\$ 77,350	104
21	E. Sandwich-Hyannis	16.8	9	1,031	152	109,554	55,440	164,993	104
22	Yarmouth-S. Dennis	5.6			145				
8	Palmer-S. Barre	25.0	10	194	87	52,994	61,875	114,869	104/52
23	Buzzards Bay-Falmouth	13.5	7	234	9	30,054	33,412	63,466	52
13	S. Sudbury-Chelmsford	20.5	5	423	5	81,888	50,737	132,625	104
33	Forest Hills-Needham Jt. ³	4.1	1	100 ⁴	200	10,000	5,150	15,150	52
Total		89.1	42	2,474	746	\$352,929	\$215,524	\$568,453	

FOOTNOTES:

- 1 Based on shipper-supplied information. An additional 1.5 times as many jobs would be lost indirectly.
- 2 Based on subsidy contract with ConRail and 15% contingency plus estimated right-of-way lease.
- 3 Only 4.1 miles of the 6.8 miles of the branch is to be operated.
- 4 Projected.

CHAPTER VI

TABLE II: PROPOSED ACQUISITION AND REHABILITATION PROGRAM (in descending order of priority)

Line	End Points	Miles	Proposed Acquisition ²		Proposed Rehabilitation ³		
			Priority ¹	Est. Cost	Miles	Description	Est. Cost
I. To be acquired and rehabilitated for continued operation							
21	E. Sandwich-Hyannis	16.8	}	\$ 307,655	16.8	FRA III	\$1,415,329
22	Yarmouth-S. Dennis	5.6			5.6	FRA III	
23	Buzzards Bay-Falmouth	13.5			13.5	FRA III	
13	S. Sudbury-Chelmsford	20.5	B1	769,380	20.5	FRA II	625,923
17	N. Abington-W. Hanover	3.6	B2	154,505	3.6	FRA II	168,893
8	Palmer-S. Barre	25.0	B3	914,622	25.0	FRA II	1,175,243
33	Forest Hills-Needham Jt. (Owned by MBTA; no rehabilitation required.)						
	Subtotal	85.0		\$2,146,162	85.0		\$3,385,388
II. To be rail banked for potential operation							
29	Wrentham-Cedar	9.7	A1	\$330,167		none	
30	Cedar-E. Walpole	3.7	A2	133,861		none	
54	Southwick-CT border	7.9	A3	302,684		none	
6	Millbury-Millbury Jt.	2.7	A4	105,370		none	
19	Westdale-E. Bridgewater	1.9	A5	83,033		none	
	Subtotal	25.9		\$955,115			

FOOTNOTES:

1 Priorities: A. Protected from loss through rail banking; B. Protected from immediate loss through continued freight service.

2 Based on USRA Final System Plan, modified by EOTC where appropriate (see text).

3 Based on EOTC engineering analyses.

EOTC: 8/1/77

VII. OVERALL PLANNING PROCESS FOR ALL TRANSPORTATION IN THE COMMONWEALTH

The overall transportation planning process in the Commonwealth is the responsibility of the Executive Office of Transportation and Construction. The planning process is delegated to the Massachusetts Department of Public Works which further delegates the planning of specific system modes to the Bureau of Transportation Planning and Development.

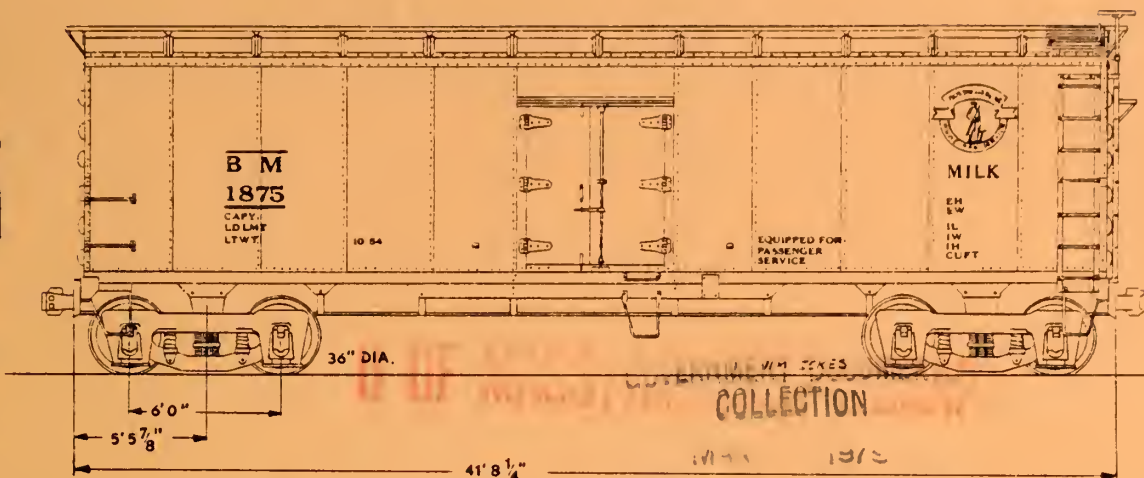
The BTP&D guides and coordinates planning activities through comprehensive regional and corridor planning studies, basic analysis zones for multi-modal uses, land use inventories and regional mapping programs. All BTP&D planning activities include local and regional participation.

A complete explanation of the planning process is found in the 1975 Transportation Planning Status Report prepared for the BTP&D under a grant from the FHWA, U.S. DOT. Copies are available by contacting the Bureau of Transportation Planning and Development directly at 150 Causeway Street, Boston, Massachusetts, 02114.

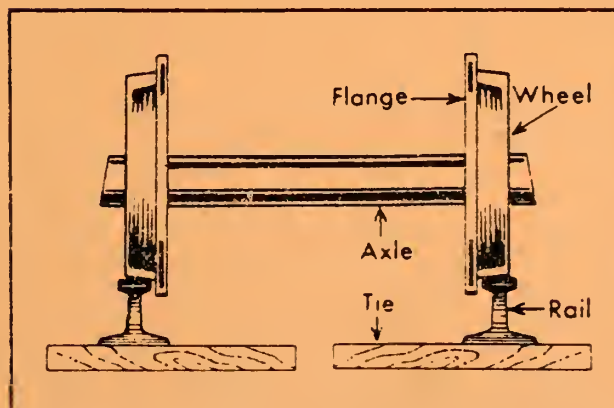
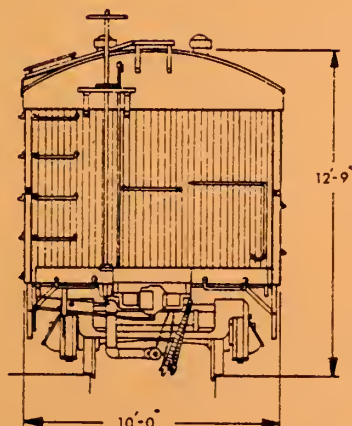
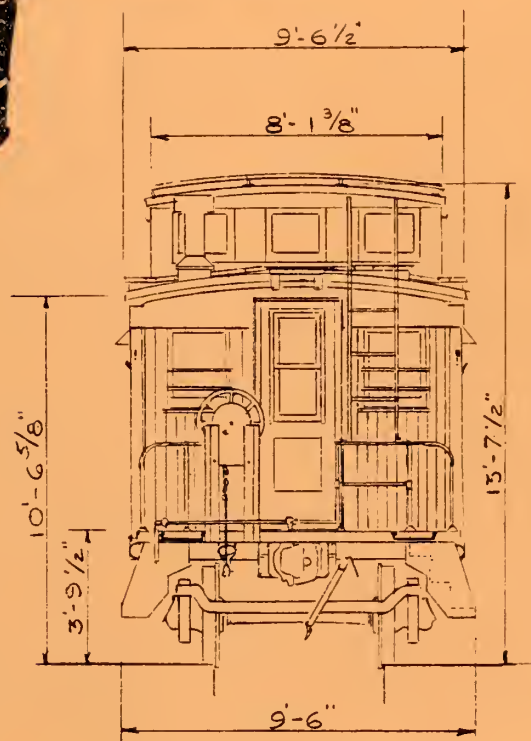
Commonwealth of Massachusetts

1978

STATE RAIL PLAN



COLLECTION
1912
University of Massachusetts
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Cover illustrations courtesy: the Boston & Maine Corp. and the Association of American Railroads.



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The

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M A S S A C H U S E T T S

S T A T E R A I L P L A N

has been prepared for the Information
of the Residents and Rail Users of
the Commonwealth and for the Federal
Railroad Administration in Conformance
with 49 CFR 266.9

by

The Executive Office of Transportation and Construction

Commonwealth of Massachusetts

August 1, 1978.

Your contributions to improve the quality and
accuracy of the Plan are welcome and should
be submitted to Undersecretary Peter J. Metz.

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VII. OVERALL PLANNING PROCESS FOR ALL TRANSPORTATION IN THE COMMONWEALTH

Glossary of Rail Terms

I. INTRODUCTION

Safe, dependable and efficient rail service is of vital importance to Massachusetts. Our rail freight system provides service on which approximately one quarter of all Massachusetts jobs are directly and indirectly dependent; our rail passenger system provides vital transportation for Boston-area commuters and for interstate travel. More than one billion dollars are invested in railyards, track, signaling, operating equipment and maintenance facilities. Given the impact rail investment makes in the Commonwealth, the energy efficiency and environmental compatibility of rail transportation, Massachusetts clearly must have a strong, dependable and viable freight and passenger rail system. But as with the national rail system, the Massachusetts system is jeopardized by increasingly serious financial difficulties of the rail carriers and the inevitable deterioration of facilities and service that results from a lack of sufficient maintenance and replacement funding.

Thus in concert with federal initiatives, Massachusetts is developing a program to ensure the preservation and improvement of our rail freight and passenger systems. This Massachusetts State Rail Plan, 1978 Edition, is a key part of this program.

The 1978 Massachusetts State Rail Plan has been developed in the context of existing Massachusetts rail legislation, Chapter 161C of the Massachusetts General Laws, and existing federal legislation, principally the Regional Rail Reorganization Act of 1973 and the Railroad Revitalization and Regulatory Reform Act of 1976. It draws upon more than two years' experience in the operation of subsidized rail freight branch lines and interaction with Amtrak and the railroads which serve Massachusetts. It includes the input and guidance obtained from consultation with Massachusetts businesses, local officials and the public.

The Executive Office of Transportation and Construction is most actively involved in the preservation and revitalization of essential rail freight services that would have been abandoned or are threatened with abandonment. It is clear that the preservation of essential rail freight services will be our concern for years to come. Thus, there is heavy emphasis on this "branch line assistance program" in this Plan.

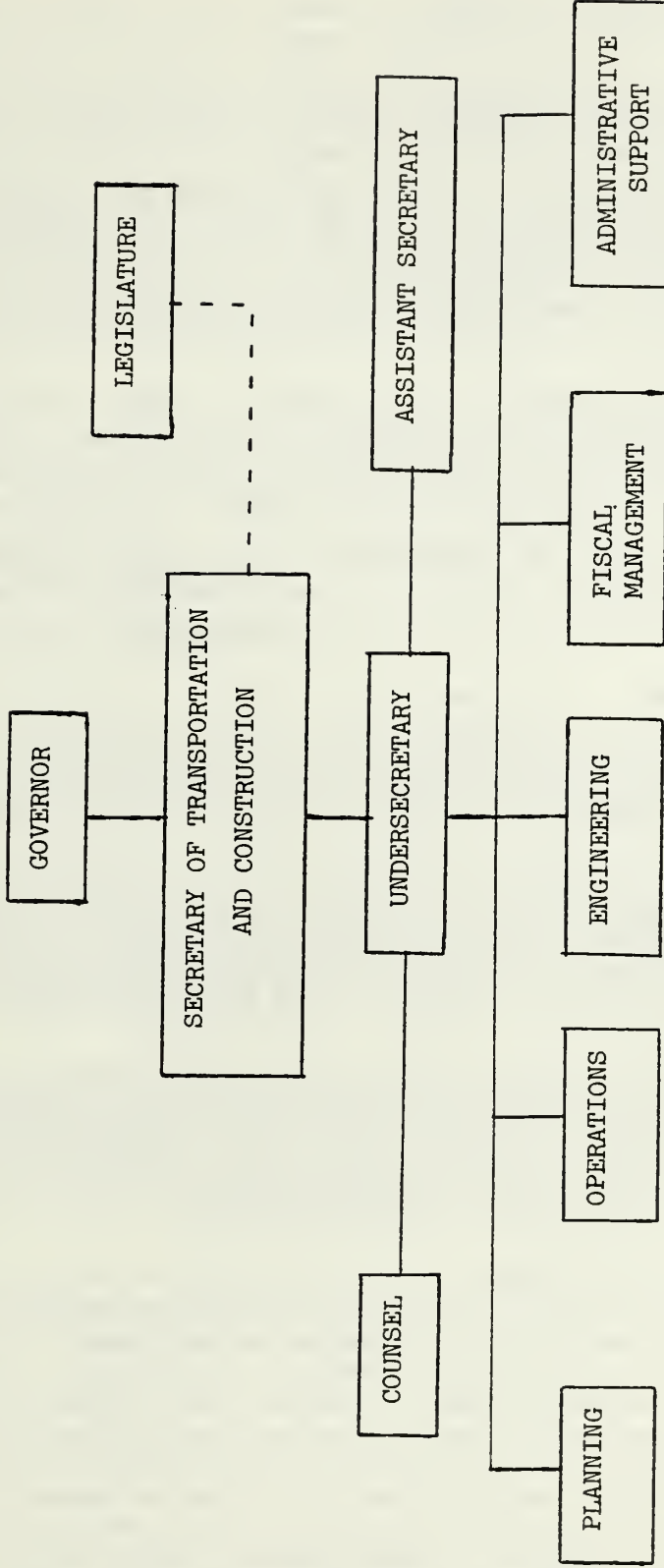
Massachusetts is also heavily involved in the rehabilitation of rail freight mainlines and facilities (with aid from the New England Regional Commission), improvement of Northeast Corridor passenger service, development of new intercity passenger services, and ongoing evaluation of the financial problems of the New England rail system. At the regional level, EOTC has an ongoing interest in the efforts the Massachusetts Bay Transportation Authority is making to operate and improve the commuter rail system of the Greater Boston metropolitan area. These programs are also addressed in this 1978 Massachusetts State Rail Plan.

The state rail planning process is an evolving one. It draws upon input from all available sources, both public and private, and it is coordinated with other statewide and regional transportation planning. In particular it is attempting to relate to the needs of the state and regional economies and to state and regional development goals. This planning process will continue to be a flexible one that seeks input and guidance from all sources and all interested parties.



The Commonwealth of Massachusetts
Executive Office of Transportation and Construction

ORGANIZATION CHART



II. THE RAIL PLANNING PROCESS

A. History

Rail planning by the Commonwealth of Massachusetts significantly predates the Regional Rail Reorganization Act of 1973. The ongoing bankruptcies of first the New Haven and then the Boston & Maine railroads have been the subject of concern, study and planning since long before ConRail (or even Penn Central) evolved. Often, the Commonwealth's rail planning efforts were in conjunction with the other five New England states and regional organizations such as the New England Regional Commission.

In 1972, for example, a rather thorough study addressed the possible reorganization of the Boston & Maine both as an operating entity and also through "segmentation" of that railroad with different segments going to various other operating carriers.

Since late 1973, the Commonwealth's rail planning effort has, of necessity, expanded. There is a need to maintain at least the current level of effort for the next several years.

B. Description

In planning this program of rail service assistance, the EOTC has relied heavily upon input from a number of interested bodies in the private, public and business/industry sectors. These bodies include:

Public Response--The Commonwealth has long been active in protecting the public rights where rail abandonments have been requested from the ICC. Through this public process, Massachusetts has come to be active in aligning itself with those forces that demonstrate the need for continued rail operation.

In pursuit of equitable decisions affecting the continuation of service on branch lines threatened with abandonment, the Commonwealth continues to hold area meetings through which the public may comment and provide guidance on acquisition, rehabilitation of branchlines and continuation of rail services.

Surveys--In conjunction with the five other New England states, the Commonwealth relied heavily upon the 1974 New England Regional Commission Rail-Use Survey to determine the rail users in the state and their need for rail freight service. We continue to rely on the survey as a source document. However, the Commonwealth surveyed the directly affected rail users a second, and in some cases, a third time to determine the accuracy of the original survey, freight rail use, options for use of alternative modes of transportation, potential use of rail, direct and indirect rail-related jobs, jobs that would be lost with the discontinuance of rail services and the economic impact on business if rail service were to cease.

The surveys also request information on traffic flow, commodities and other information which may throw special light on specific consignee needs. Train operations are observed and members of the Executive Office of Transportation and Construction staff frequently ride trains on threatened and on subsidized lines.

Lightly used branch lines are only a part of our rail planning effort. We are now undertaking a more concerted analysis of patterns of traffic flows in the Commonwealth. Changes in the industry structure and the strengths of connections to the south and west of New England are under study.

Finally, a key component of our current planning process involves the bankruptcy of the Boston & Maine Railroad and the Trustees' efforts at reorganization. Preservation of this railroad serving two-thirds of New England is a concern of economists and transportation planners in Massachusetts, New Hampshire, Vermont, and Maine. A more complete description of our activities is provided in Chapter IV.

C. Enabling Legislation

On December 31, 1975, the General Court of the Commonwealth enacted legislation entered into Chapter 859 of the General Laws of the Commonwealth as A Comprehensive Transportation Bond Authorization. This legislation authorizes the Executive Office of Transportation to acquire, rehabilitate, subsidize and/or bank rail rights-of-way. Funding to carry out this authority is to be derived from the sale of bonds in the amounts of \$4.5 million for freight-use branch line rehabilitation and acquisition, \$500,000 to be used to implement and/or continue subsidized operations on abandoned rights-of-way, and \$15 million for passenger transportation services.

The Commonwealth's commitment to its rail program was further demonstrated when funding in the amount of \$500,000 was appropriated in June 1977 to cover the state share of the continued service assistance program. Those funds are still available to cover the state share of the 1978-79 program.

D. Data Sources

In its decision-making, the EOTC is utilizing information available in the following documents:

Massachusetts Department of Public Works:

Highway location and capacity reports based on Tippetts-Abbott-McCarthy-Stratton engineering reports

Statewide Railroad Right-of-way Study prepared by TAMS for the Massachusetts DPW and the US DOT/Federal Highway Administration updated by EOTC, May 1977

1977 Regional Maps of the Commonwealth

U. S. Department of Interior Geological Survey

Harbridge House, Inc.:

(Studies prepared for the New England Regional Commission)

The Economic Impact of Rail Service in New England, April 1975

Traffic Volume Projections for 1980: New England Railroads, June 1975

Methodology for Determination of Environmental and Energy Consumption Impacts, November 1974

New England Railroad Traffic Flows Baseline Simulation for 1973

New England Railroad Traffic Flows Baseline Simulation for 1980

Reebie Associates:

New England Freight Traffic Flows, October 1975

Freight Rail User Survey, August 1974

Canadian Transport Commission--Systems Analysis and Research Data Base Branch:

A Study of Amtrak's Effectiveness, November 1974

National Railroad Passenger Corporation--Board of Directors:

Criteria and Procedures for Making Route and Service Decisions

Consad Research Corporation:

USRA Analysis of Community Impacts Resulting from the Loss of Rail Service, February 1975

Executive Office of Transportation and Construction:

Monthly LDL Rail User Report Form (Exhibit A)

United States Railway Association:

Final System Plan, July 1975

US Department of Transportation:

Final Standards, Classification and Designation of Lines of
Class I Railroads in the United States, January 1977

Rail Service in the Midwest and Northeast Region, February 1974

Association of American Railroads--Accounting Division:

Freight Station Accounting Code Directory, April 1974

Commonwealth of Massachusetts--Division of Employment Security:

Employment Review (monthly reports)

Massachusetts Trends (monthly reports)

MCA Engineering Corporation:

(Study prepared for the New England Regional Commission)

Condition of Railroad Track Facilities in New England, March 1975

E. Criteria for Making Priority Decisions Among Various Subsidized Services and Projects

During the months prior to the cessation of Penn Central service on April 1, 1976, the primary decision which had to be made concerned which lines excluded from the ConRail system would be subsidized and which would not. The lines were divided in two groups: those lines on which discontinuation of rail service would result in an immediate job loss in the industries served by rail; those where such job loss would not immediately take place because of the existence of alternative transportation. Following a comparative analysis of the cost to State and Federal unemployment and welfare programs, loss of state income taxes, loss of purchasing power in local communities, prospects for new job development, prospects of family relocation due to job change, prospects for maintenance and the anticipated cost of continued rail service, the decision was made to subsidize the six branch lines identified as USRA #8, 13, 17, 21/22 and 23. A decision was made to subsidize the other seven lines only if a shipper, the municipality or some other party came forward and offered to fund a significant portion of the subsidy. Following a year without rail service the single user of USRA Line #33 requested resumption of service. The user would pay \$5,000 toward the cost of this service. We expect to conclude the arrangements for resumption of this service in 60 to 90 days. No other such offers have been forthcoming to resume service on the remaining lines which would be rail banked.

Acquisition

Decisions concerning acquisition of lines are based on the following prerequisites. Lines not under subsidy were threatened with immediate physical abandonment and disposal unless an offer to purchase was made. Since all of the non-subsidized lines had at least the strong potential for future rail service, the Commonwealth offered to purchase them from the Penn Central if the lines were not already owned by a state agency. Lines under subsidy were given second priority because they were not threatened by immediate physical abandonment.

Specific ranking within the above-described general categories was judgmental, based on the following primary factors:

- a. Costs: Based largely on the figures developed by USRA in preparing the Final System Plan, inflated to cover inflation, and modified as appropriate to suit changed conditions.
- b. Economic Impact: Primarily the estimated job loss resulting from rail service discontinuance (information was requested of each rail user);
- c. Growth in Rail Use: Reasonable tangible evidence that continuation of rail service would result in growth in rail traffic;

- d. Industrial Development Potential: The availability of land and buildings for future rail users and related local plans;
- e. Passenger Service: The likelihood of future rail passenger service;
- f. Highway Capacity Constraints: In all cases, the neighboring highways were found to have the theoretical capacity to carry the discontinued rail freight in equivalent truckloads; however, in several cases this additional truck traffic was most undesirable;
- g. Environmental Impact: Impact on the local environment due to cessation of service and implementation of alternate transportation.

Rehabilitation

Rehabilitation projects have been evaluated as long-term economic investments in the Massachusetts business community. These investments have been weighed against resultant savings in cost of operation and the ability of the affected line to handle additional traffic which will reduce the overall subsidy.

The criteria used:

- a. Costs: In no case will a project or a subsidized operation be justified if its cost exceeds the benefits (direct or indirect) as defined in the 3(R) and 4(R) Acts. All projects which satisfy this criterion are evaluated as to costs and benefits. Projects with higher benefit/cost ratios are given higher priority than those with lower benefit/cost ratios. In cases where the direct benefits (usually savings in future subsidized operations) exceed costs, special priority is usually given because these projects can result in increased availability of future funds for other projects. Because no future benefits--direct or indirect--can be predicted with certainty, some judgment is always exercised when weighing direct benefits against indirect benefits and when predicting the probability that benefits will actually be realized.
- b. Economic Impact: Economic impact takes several forms. An immediate identifiable economic impact is job loss resulting from loss of service. Where job loss can be predicted, it is relatively easy to calculate lost payroll, lost secondary jobs, income tax loss, sales tax loss, welfare costs and unemployment benefit costs. Likewise, when job creation can be realistically predicted as the result of a project, benefits from the same items can be calculated. In many cases, however, neither job loss nor job creation can be predicted with certainty. Accordingly, it is always necessary to exercise judgment when considering the probability of any economic

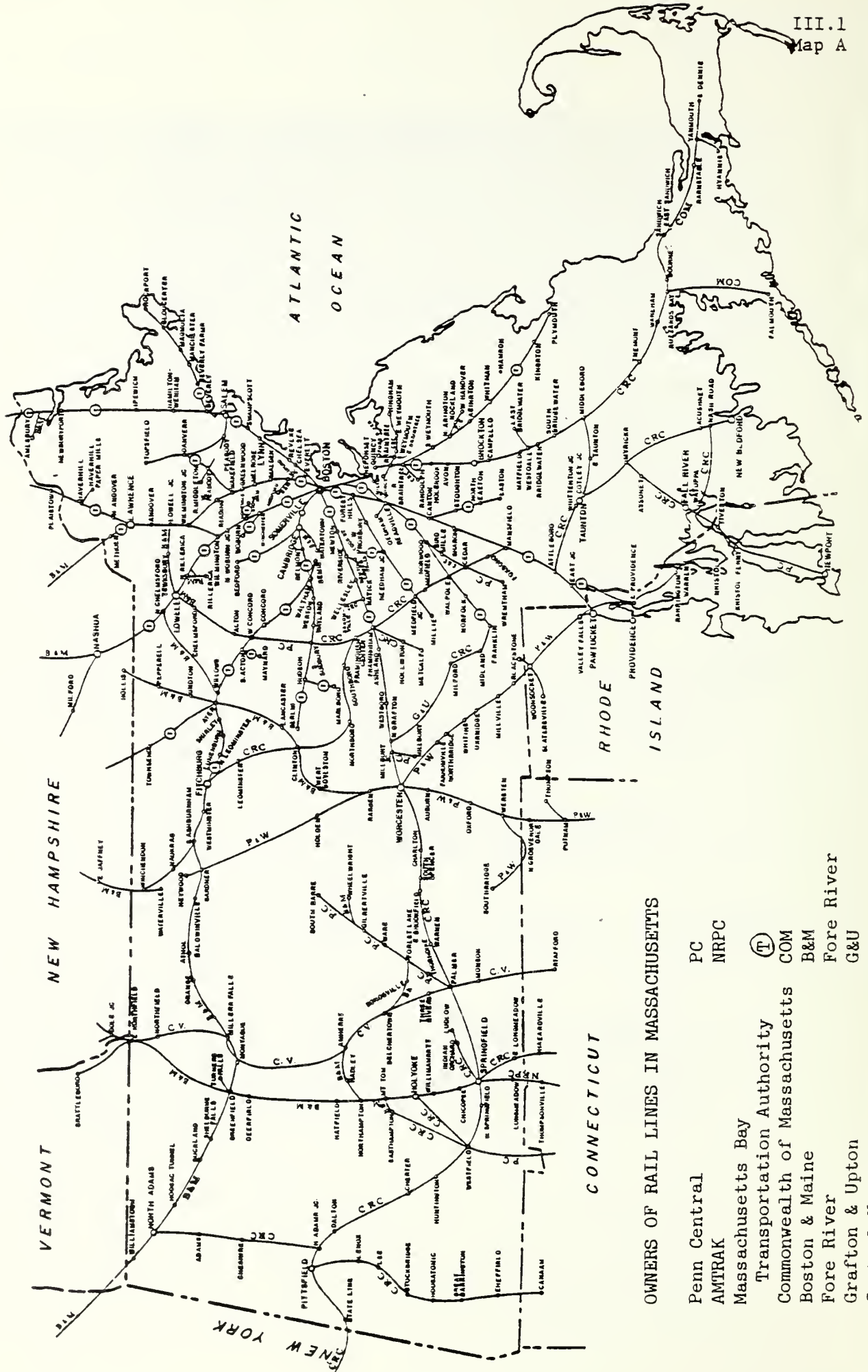
impact; the current unemployment situation in the given area must also be considered. (In general, costs and economic impact are the most important criteria considered.)

- c. **Growth in Rail Use:** If growth in rail use can be reasonably expected, the resultant reduction in subsidy cost is a direct benefit that should be considered. More importantly, very high priority must be given to projects which facilitate handling additional traffic in situations where such additional traffic can be reasonably expected.
- d. **Industrial Development Potential:** Consideration must be given to the availability of land and buildings appropriate for rail-dependent industrial development. Preservation of rights-of-way to service these areas is justifiable. However, projects requiring higher investment cannot be justified by industrial development potential alone unless there is evidence or assurance that such development is underway or reasonably anticipated. Often, the willingness of the industrial developer to share the risk of initial construction may be needed to provide such assurance. Also, the need for industrial development to the local economy must be considered.
- e. **Passenger Service:** The likelihood of future rail passenger service has been considered in all cases. However, no decisions to expend freight subsidy funds are based on passenger considerations to the detriment of freight projects elsewhere unless some non-freight funding is also available.
- f. **Highway Capacity Constraints:** Problems created on highways due to diverted traffic have been evaluated and considered in priority decisions when impacts are significant.
- g. **Environmental Impact:** Marked differences in environmental impact have been considered while evaluating alternative projects.

All of the above criteria are quantifiable to some degree. Each requires the use of a significant amount of judgment. It is impossible to establish formulae which would allow calculations to weigh these factors against one another. In the final analysis, non-quantifiable judgment is needed in every case to make the optimum decision.

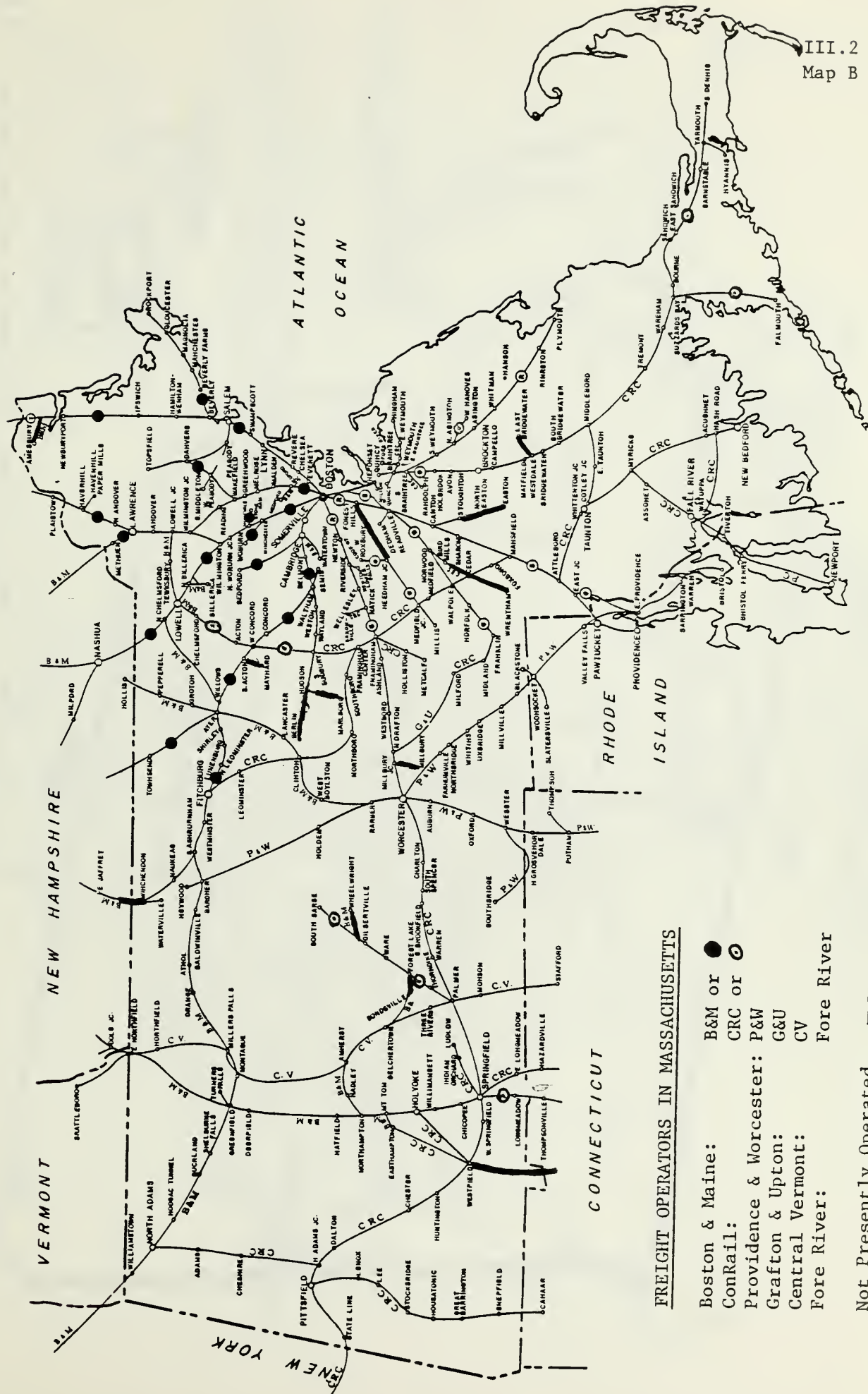
III. MAPS ILLUSTRATING CLASSIFICATION OF THE RAIL SYSTEM IN MASSACHUSETTS

This chapter consists of maps detailing various aspects of the rail system in Massachusetts as required by 49 CFR 266.9(d)(2, 3).



OWNERS OF RAIL LINES IN MASSACHUSETTS

Penn Central	PC
AMTRAK	NRPC
Massachusetts Bay Transportation Authority	(T)
Commonwealth of Massachusetts	COM
Boston & Maine	B&M
Fore River	Fore River
Grafton & Upton	G&U
Central Vermont	CV
Providence & Worcester	P&W
ConRail	ConRail



FREIGHT OPERATORS IN MASSACHUSETTS

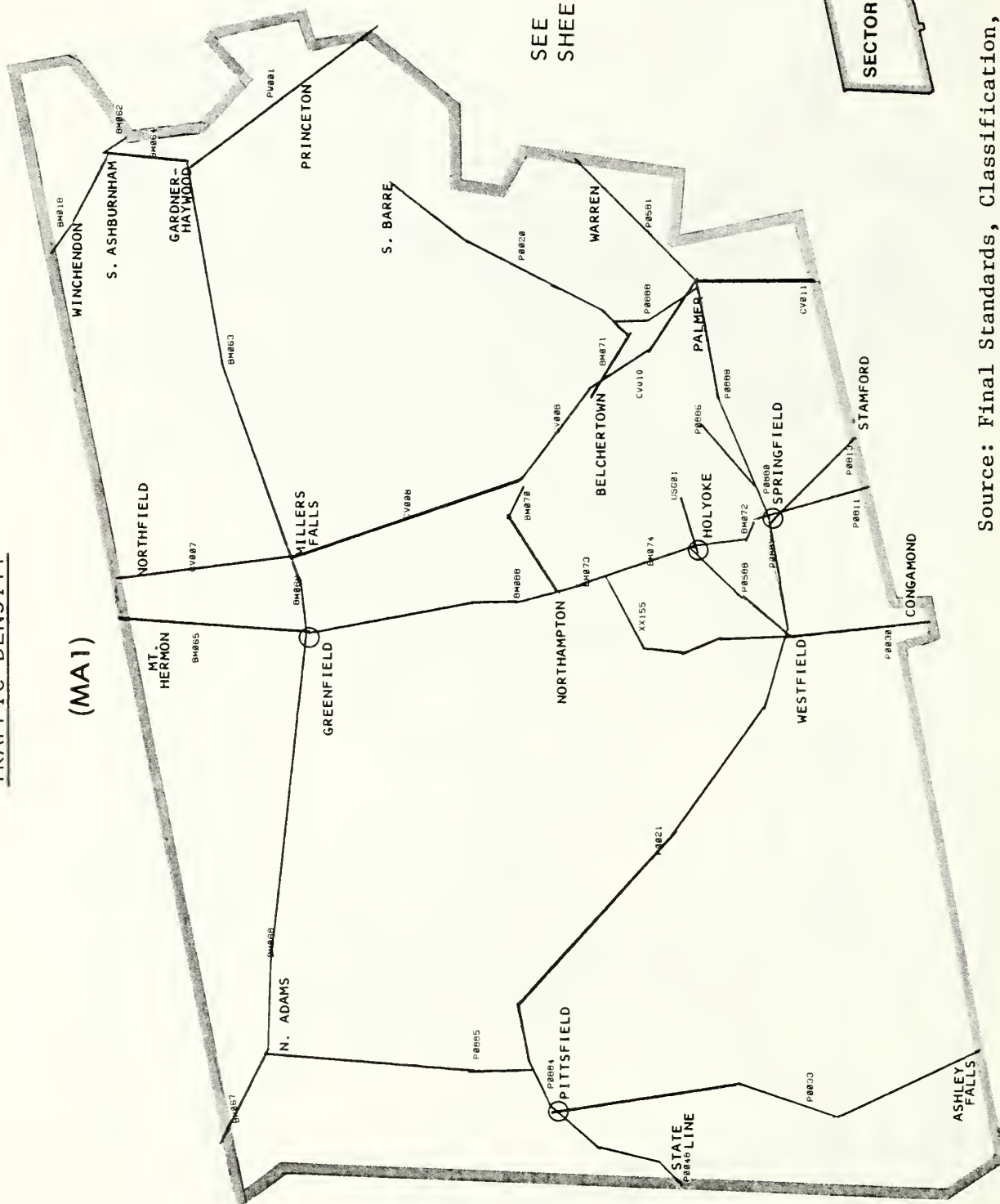
- Boston & Maine: B&M or ●
- ConRail: CRC or ○
- Providence & Worcester: P&W
- Grafton & Upton: G&U
- Central Vermont: CV
- Fore River: Fore River
- Not Presently Operated: —

(MA1)

SEE FOLLOWING LINE CODE
SHEET FOR EXPLANATION

III.3
Map C.1

Source: Final Standards, Classification, and Designation of Lines of Class I Railroads in the United States, U.S. Dept. of Transportation, January 19 1977

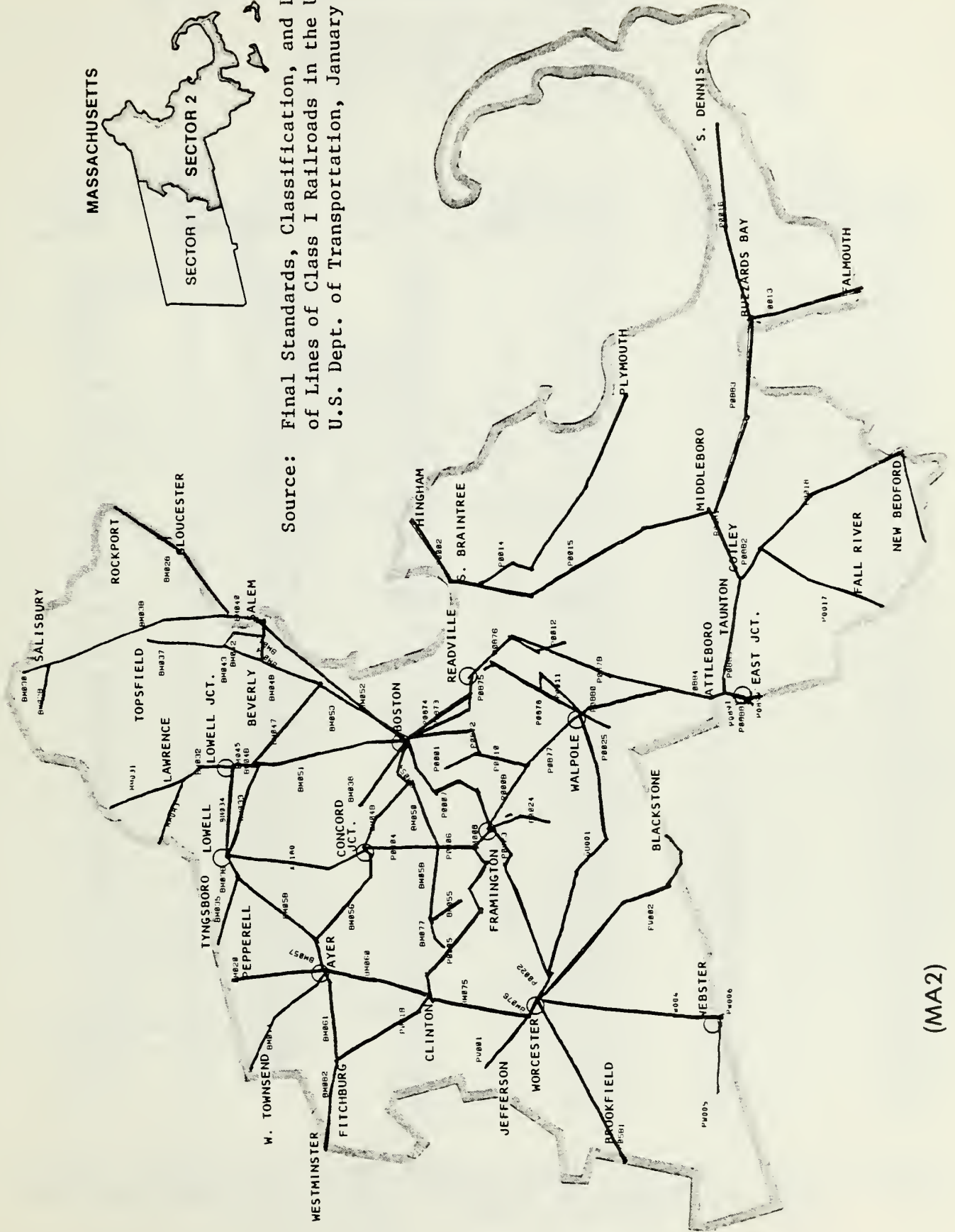


TRAFFIC DENSITY

III.4
Map C.2



Source: Final Standards, Classification, and Designation
of Lines of Class I Railroads in the United States,
U.S. Dept. of Transportation, January 19, 1977



(MA2)

TRAFFIC DENSITY BY LINE SEGMENT

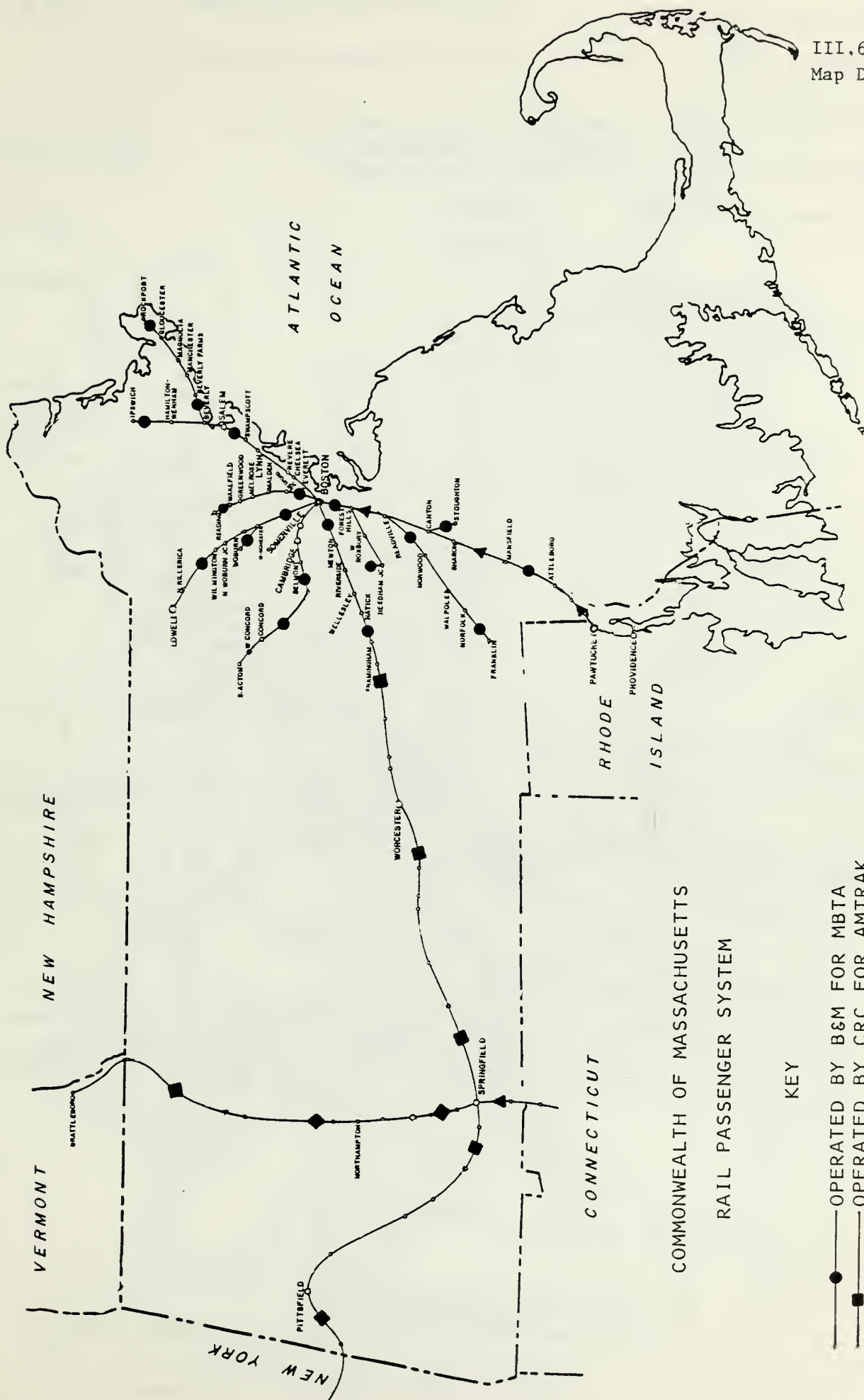
III.5
Map C (key)

TRAFFIC DENSITY CODE

<u>CODE</u>	<u>VALUE (IN MILLIONS OF ANNUAL GROSS TONS)</u>
1	LESS THAN 1
2	AT LEAST 1 BUT LESS THAN 5
3	AT LEAST 5 BUT LESS THAN 10
4	AT LEAST 10 BUT LESS THAN 20
5	AT LEAST 20 BUT LESS THAN 30
6	30 AND OVER

<u>LINE</u> <u>IDENT</u> <u>CODE</u>	<u>TRAFFIC</u> <u>DENSITY</u> <u>CODE</u>	<u>MAP</u> <u>SECTOR</u> <u>CODE</u>	<u>LINE</u> <u>IDENT</u> <u>CODE</u>	<u>TRAFFIC</u> <u>DENSITY</u> <u>CODE</u>	<u>MAP</u> <u>SECTOR</u> <u>CODE</u>	<u>LINE</u> <u>IDENT</u> <u>CODE</u>	<u>TRAFFIC</u> <u>DENSITY</u> <u>CODE</u>	<u>MAP</u> <u>SECTOR</u> <u>CODE</u>
P0001	1	MA2	P0883	1	MA2	BM044	1	MA2
P0002	2	MA2	P0884	6	MA1	BM045	2	MA2
P0004	1	MA2	P0886	1	MA1	BM046	2	MA2
P0005	2	MA2	P0887	6	MA1	BM047	1	MA2
P0006	1	MA2	P0888	1	MA1	BM048	1	MA2
P0007	5	MA2	P0889	5	MA1	BM049	3	MA2
P0008	2	MA2	P0890	5	MA1	BM050	1	MA2
P0009	3	MA2	P0894	3	MA2	BM051	2	MA2
P0010	2	MA2	P0895	2	MA2	BM052	2	MA2
P0011	1	MA2	P0897	3	MA2	BM053	1	MA2
P0012	3	MA2	P0899	-	MA2	BM054	3	MA2
P0013	1	MA2	PW001	-	MA1, 2	BM055	1	MA2
P0014	1	MA2	PW002	1	MA2	BM056	3	MA2
P0015	2	MA2	PW004	1	MA2	BM057	5	MA2
P0016	1	MA2	PW005	1	MA2	BM058	5	MA2
P0017	1	MA2	CV007	2	MA1	BM059	1	MA2
P0018	2	MA2	CV008	2	MA1	BM060	2	MA2
P0019	2	MA2	CV009	2	MA1	BM061	5	MA2
P0020	1	MA1	CV010	2	MA1	BM062	5	MA1, 2
P0021	6	MA1	CV011	2	MA1	BM063	5	MA1
P0022	5	MA2	BM019	1	MA1	BM064	5	MA1
P0023	5	MA2	BM020	1	MA2	BM065	3	MA1
P0024	1	MA2	BM028	1	MA2	BM066	5	MA1
P0025	1	MA2	BM029	1	MA2	BM067	5	MA1
P0048	6	MA1	BM030	1	MA2	BM068	5	MA1
P0589	1	MA1	BM031	5	MA2	BM069	3	MA1
P0591	5	MA1, 2	BM032	5	MA2	BM070	1	MA1
P0872	1	MA2	BM033	2	MA2	BM071	1	MA1
P0873	1	MA2	BM034	5	MA2	BM072	3	MA1
P0874	2	MA2	BM035	2	MA2	BM073	3	MA1
P0875	1	MA2	BM036	5	MA2	BM074	3	MA1
P0876	1	MA2	BM037	1	MA2	BM075	2	MA2
P0877	3	MA2	BM038	1	MA2	BM076	2	MA2
P0878	1	MA2	BM039	1	MA2	BM077	1	MA2
P0879	1	MA2	BM040	1	MA2	GU001	2	MA2
P0880	3	MA2	BM041	1	MA2	XX155	1	MA1
P0881	2	MA2	BM042	1	MA2	XX180	1	MA2
P0882	2	MA2	BM043	1	MA2			

SOURCE: FINAL STANDARDS, CLASSIFICATION, AND DESIGNATION OF LINES OF CLASS I RAILROADS IN THE UNITED STATES, U.S. DEPT. OF TRANSPORTATION, JANUARY 19, 1977



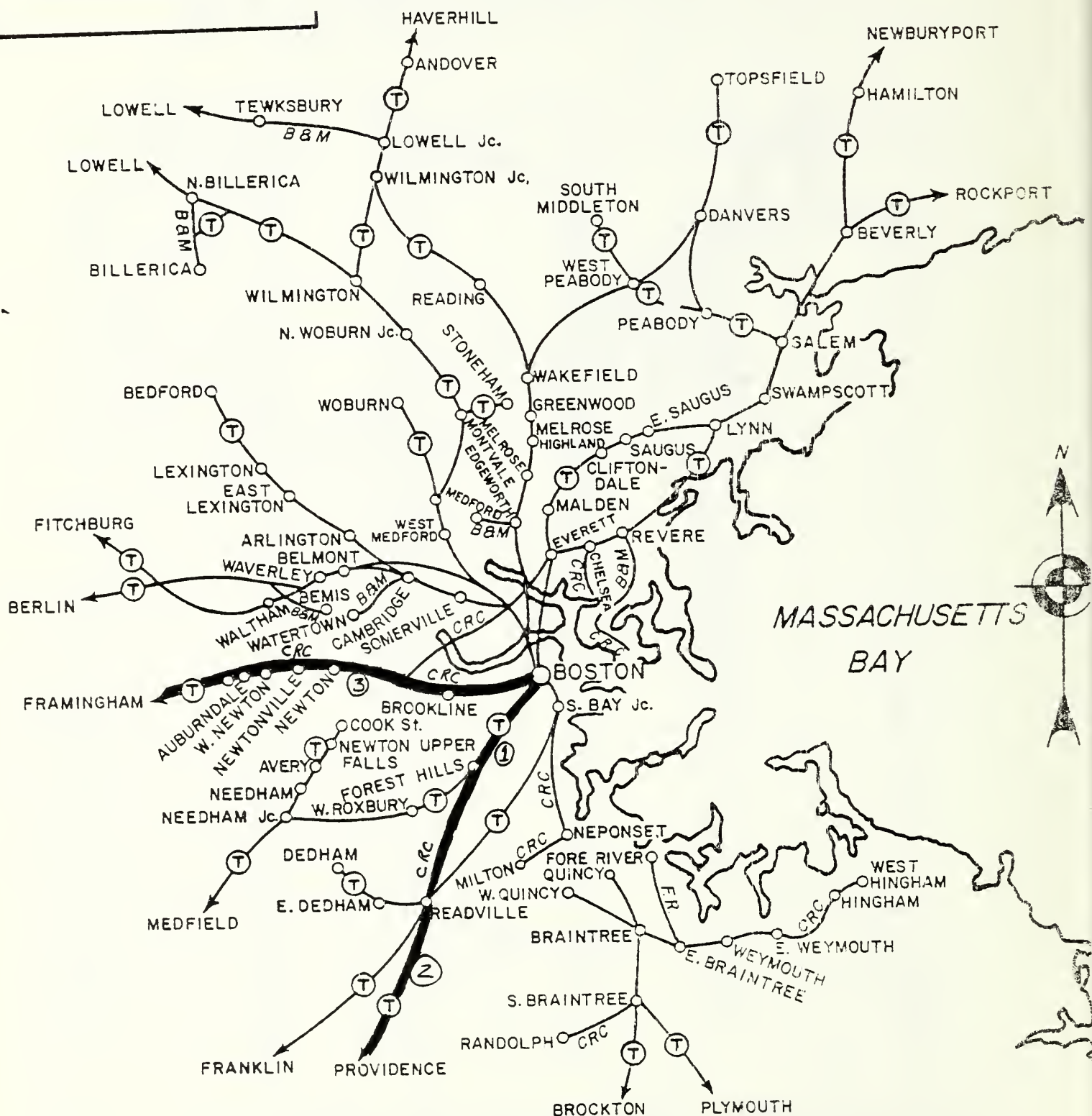
KEY

- OPERATED BY B&M FOR MBTA
- OPERATED BY CRC FOR AMTRAK
- ◆— OPERATED BY B&M FOR AMTRAK
- ▲— OPERATED BY AMTRAK FOR AMTRAK

Through and Local Clearances

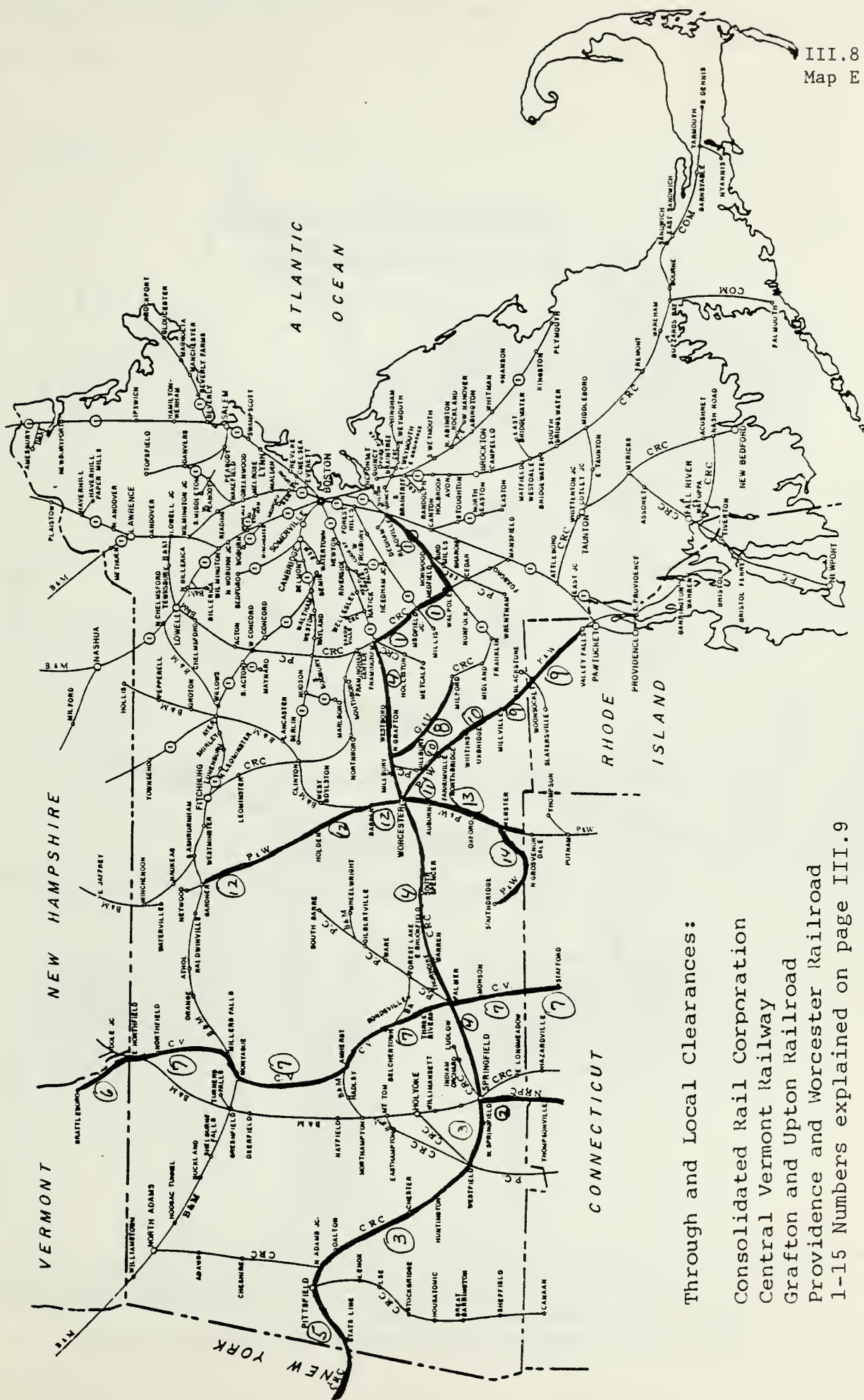
1. Readville to Boston Freight Terminal
2. Readville to Providence, R.I.
3. Framingham to Beacon Park

16' H x 9'6" W (1)*
16'6" H x 8'8" W (1),* (2)*
16'6" H x 8'8" W (1)*



```
* (1) Cannot handle plate "F" cars
* (2) CRC has trackage rights over Amtrak Northeast Corridor
```

BOSTON and VICINITY



Through and Local Clearances:

Consolidated Rail Corporation

Central Vermont Railway

Grafton and Upton Railroad

Providence and Worcester Railroad

1-15 Numbers explained on page III.9

Consolidated Rail Corporation

Through and Local Clearances

1. Framingham to Readville	17'6" H x 11'0" W (1)*
2. Springfield to New Haven, Conn.	17'6" H x 11'0" W (2)*
3. Springfield to Pittsfield	17'6" H x 7'0" W
4. Springfield to Framingham	17'6" H x 11'0" W
5. Selkirk, N.Y. to Pittsfield	17'9" H x 4'0" W

Central Vermont Railway

Through and Local Clearances

6. Brattleboro, Vt. to East Northfield, Mass.	16'6" H x 11'0" W
7. East Northfield, MA. to Yantic, Conn.	15'9" H x 11'0" W

Grafton and Upton

8. No restriction in width, maximum height	19'5 3/4"
--	-----------

Providence and Worcester

Through and Local Clearances

9. Valley Falls, R.I. and Millville, Mass.	17'3" H x 11'0"W
10. Millville to Millbury	17'3" H x 11'0" W
11. Millbury to Worcester	18'0" H x 11'0"W
12. Worcester to Gardner	17'3" H x 11'0" W
13. Worcester to Webster	17'5" H x 11'0" W
14. Southbridge to Webster	15'10" H x 11'0" W

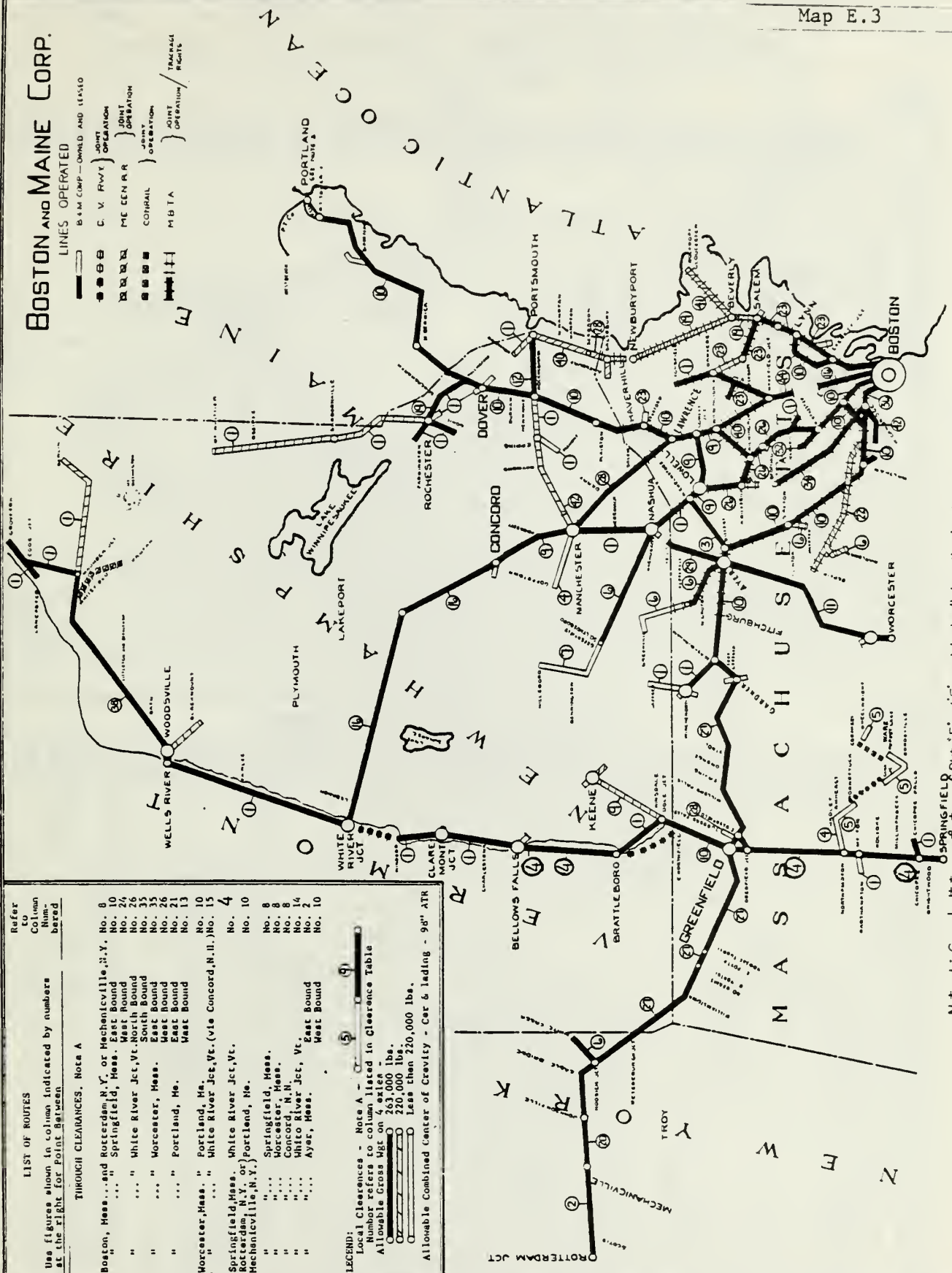
*(1) Cannot handle plate "F" cars

*(2) CRC has trackage rights over Amtrak Northeast Corridor

BOSTON AND MAINE CORP.

LINES OPERATED

B & M CORP.—OWNED AND LEASED
 C. V. RWT } JOINT OPERATION
 M. C. E. R. R. } JOINT OPERATION
 CONRAIL } JOINT OPERATION
 MBTA } JOINT OPERATION
 TRAILAGE RIGHTS



Note 1: Cars built to specifications of Plates E and F cannot be handled without advance authority.
 Note 2: A & C Cars built to specification of Plate C cannot be handled on route Winchester, Mass. and Woburn, Mass. (Branch).
 Note 3: For Portland Terminal Co. Clearances, see Maine Central Railroad Company's representation.

CLEARANCE AND WEIGHT LIMITS.

III.11

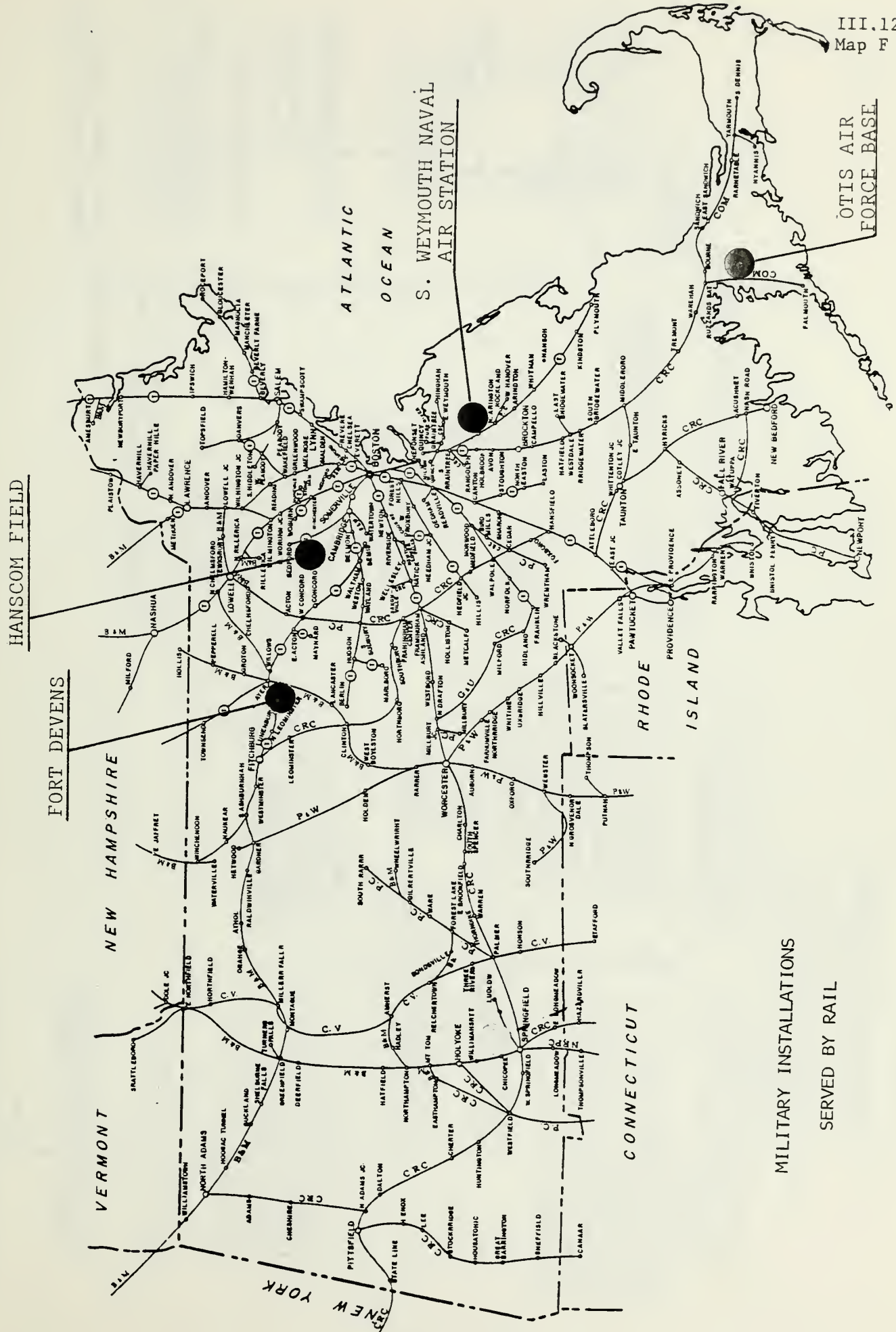
Map E.3(key)

BOSTON AND MAINE CORPORATION—Continued.

Heights above Top of Rail.		THROUGH AND LOCAL CLEARANCES.																						Heights above Top of Rail.			
		Note A																									
		No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9	No. 10	No. 11	No. 12	No. 13	No. 14	No. 15	No. 16	No. 17	No. 18	No. 19	No. 20	No. 21	No. 22				
		Width	Width	Width	Width	Width	Width	Width	Width	Width	Width	Width	Width	Width	Width	Width	Width	Width	Width	Width	Width	Width	Width	Width	Width		
ft. in.		ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.		
18	0	11 0	1 0	-	5 0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18	0
17	9	"	7 0	6 0	6 3	11 0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17	9
17	6	"	8 8	10 0	8 10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17	6
17	3	"	10 0	11 0	9 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17	3
17	0	"	11 0	"	10 10	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17	0
16	9	"	"	"	10 10	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	9
16	6	"	"	"	11 0	11 0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	6
16	5	"	"	"	"	"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	5
16	4	"	"	"	"	"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	4
16	3	"	"	"	"	"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	3
16	2	"	"	"	"	"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	2
16	0	"	"	"	"	"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	0
15	11	"	"	"	"	"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	11
15	9	"	"	"	"	"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	9
15	8	"	"	"	"	"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	8
15	6	"	"	"	"	"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	6
15	3	"	"	"	"	"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	3
15	0	"	"	"	"	"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	0
14	9	"	"	"	"	"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	9
14	6	"	"	"	"	"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	6
14	3	"	"	"	"	"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	3
14	0	"	"	"	"	"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	0
13	9	"	"	"	"	"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	9
13	6	"	"	"	"	"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	6
5	0	"	"	"	"	"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	0
4	0	"	"	"	"	"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	0
3	6	11 0	0 11	0	"	"	11 0	"	"	11 0	"	11 0	"	11 0	"	11 0	11 0	11 0	11 0	11 0	11 0	11 0	11 0	11 0	11 0	3	6
3	0	10 6	10 6	11 0	0 11	0	"	10 2	11 0	0 11	0 10	6 11	0 10	4	"	11 0	10 10	10 10	6 11	0 10	2	"	10 4	"	3	0	
2	6	10 4	10 4	10 6	9 10	6	"	9 11	10 9	9 10	6	"	10 6	10 2	10 8	10 2	"	10	0 10	6 10	2	"	10 2	11 0	2	6	
2	0	10 4	10 4	2	"	10 6	11 0	0 9	8	"	10 2	10 6	8 10	0	10 2	10 8	10 2	11 0	"	10 6	10 0	"	10 2	10 9	2	0	
1	6	10 0	10 0	0	"	10 0	10 0	0 9	6 10	9 10	2 10	3	"	10 2	10 0	0 9	6 10	10 10	10	"	10 2	10 0	11 0	10 10	1	6	
1	0	9 6	9 9	6 10	9 9	8 9	4 9	4 10	0 9	6 10	0 10	0 10	0 9	6 10	0 9	10 9	2 10	6 10	6 10	0 10	2 9	8 10	0 10	0 10	1	0	
0	6	9 0	9 2	2 9	4 9	6 9	2 8	10 9	4 9	2 9	0 9	0 9	2 9	2 9	2 8	8 9	8 9	8 9	9 9	0 9	4 9	4 10	0 9	2 9	0	6	
0	3	9 0	7 2	2 9	4 9	6 9	2 8	8 9	4 7	2 8	9 9	0 7	2 9	2 7	2 7	2 9	9 9	9 9	9 9	0 9	4 9	0 9	10 9	2 9	0	3	

Height above Top of Rail.	THROUGH AND LOCAL CLEARANCES—Continued.																						Height above Top of Rail.	
	Note A																							
	No. 23	No. 24	No. 25	No. 26	No. 27	No. 28	No. 29	No. 30	No. 31	No. 32	No. 33	No. 34	No. 35	No. 36	No. 37	No. 38	No. 39	No. 40	No. 41	No. 42	No. 43	No. 44		
ft. in.	Width	Width	Width	Width	Width	Width	Width	Width	Width	Width	Width	Width	Width	Width	Width	Width	Width	Width	Width	Width	Width	Width	Width	ft. in.
18 0																								18 0
17 9																								17 9
17 6																								17 6
17 3																								17 3
17 0																								17 0
16 9																								16 9
16 6																								16 6
16 5																								16 5
16 4																								16 4
16 3																								16 3
16 2																								16 2
16 0																								16 0
15 11																								15 11
15 9																								15 9
15 8																								15 8
15 6																								15 6
15 3																								15 3
15 0																								15 0
14 9																								14 9
14 6																								14 6
14 3																								14 3
14 0																								14 0
13 9																								13 9
13 6																								13 6
5 0																								5 0
4 0																								4 0
3 6																								3 6
3 0																								3 0
2 6																								2 6
2 0																								2 0
1 6																								1 6
1 0																								1 0
0 6																								0 6
0 3																								0 3

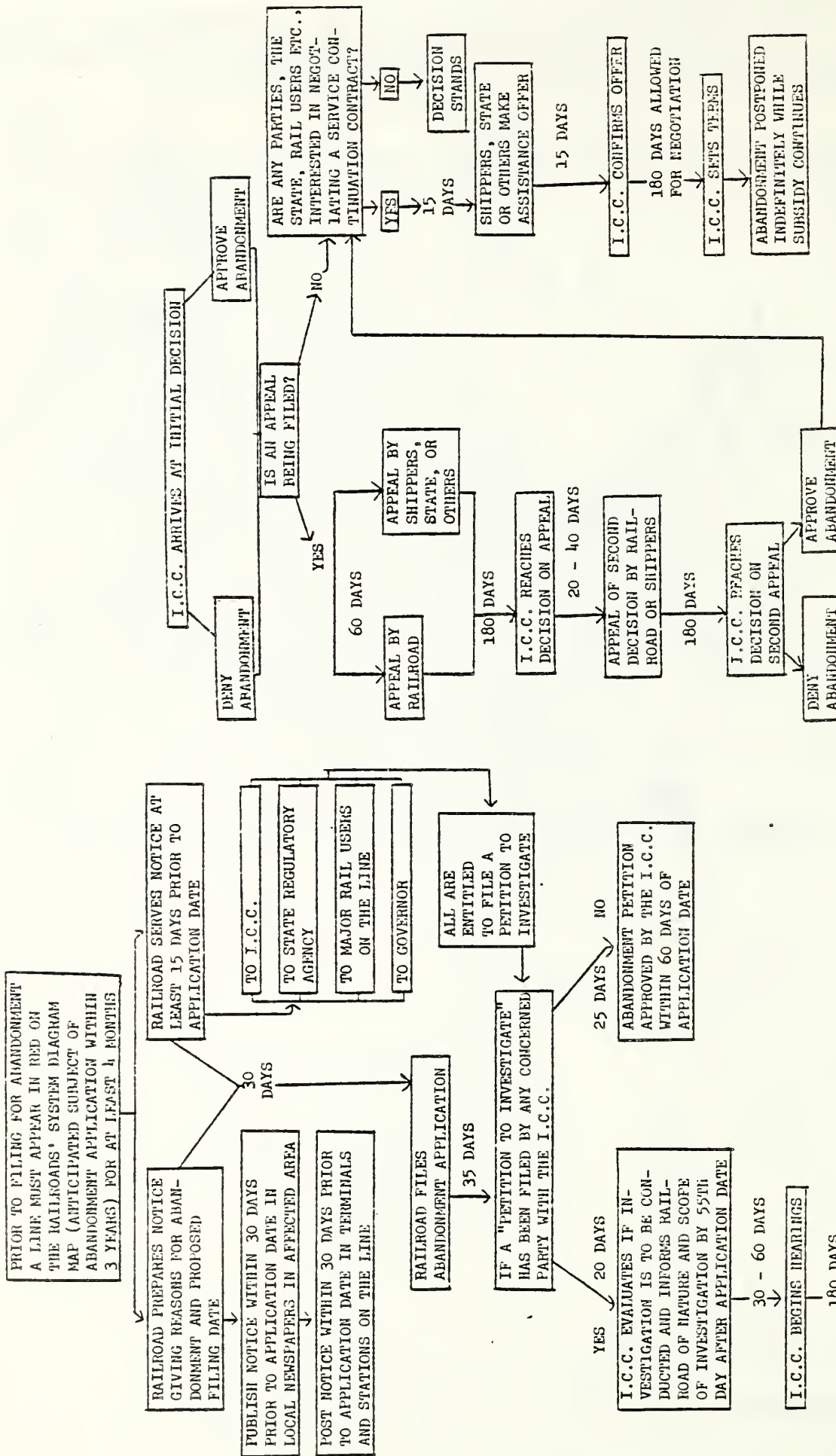
Note A—Maximum gross weight of cars and lading, clearances and maximum combined center of gravity shown herein may be exceeded on some lines by special authority from Supt. Freight Transportation, North Billerica, Mass. 01862 — Phone: 1-(617)-667-2968 — Telex 940622.



MILITARY INSTALLATIONS

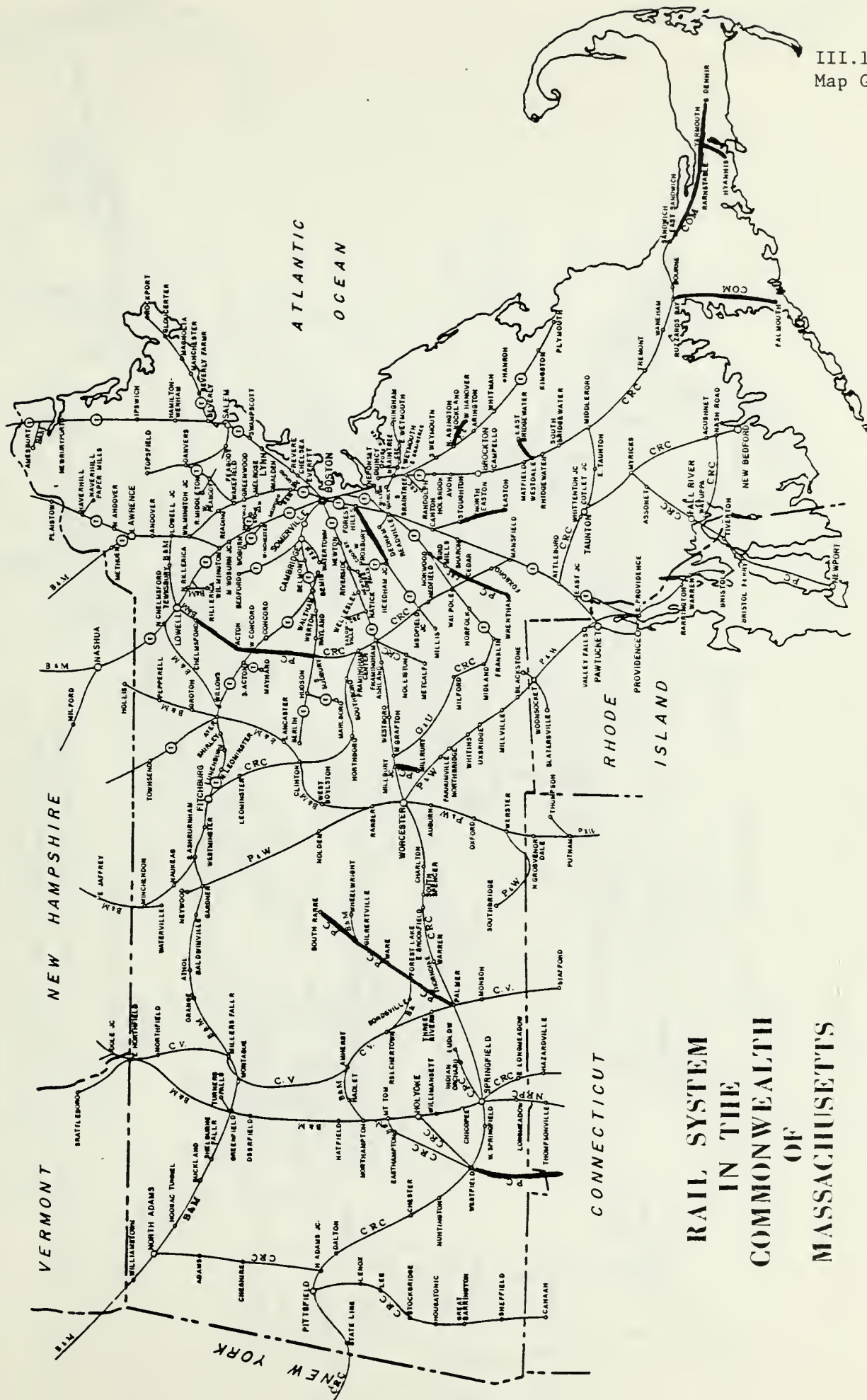
SERVED BY RAIL

RAIL ABANDONMENT PROCESS



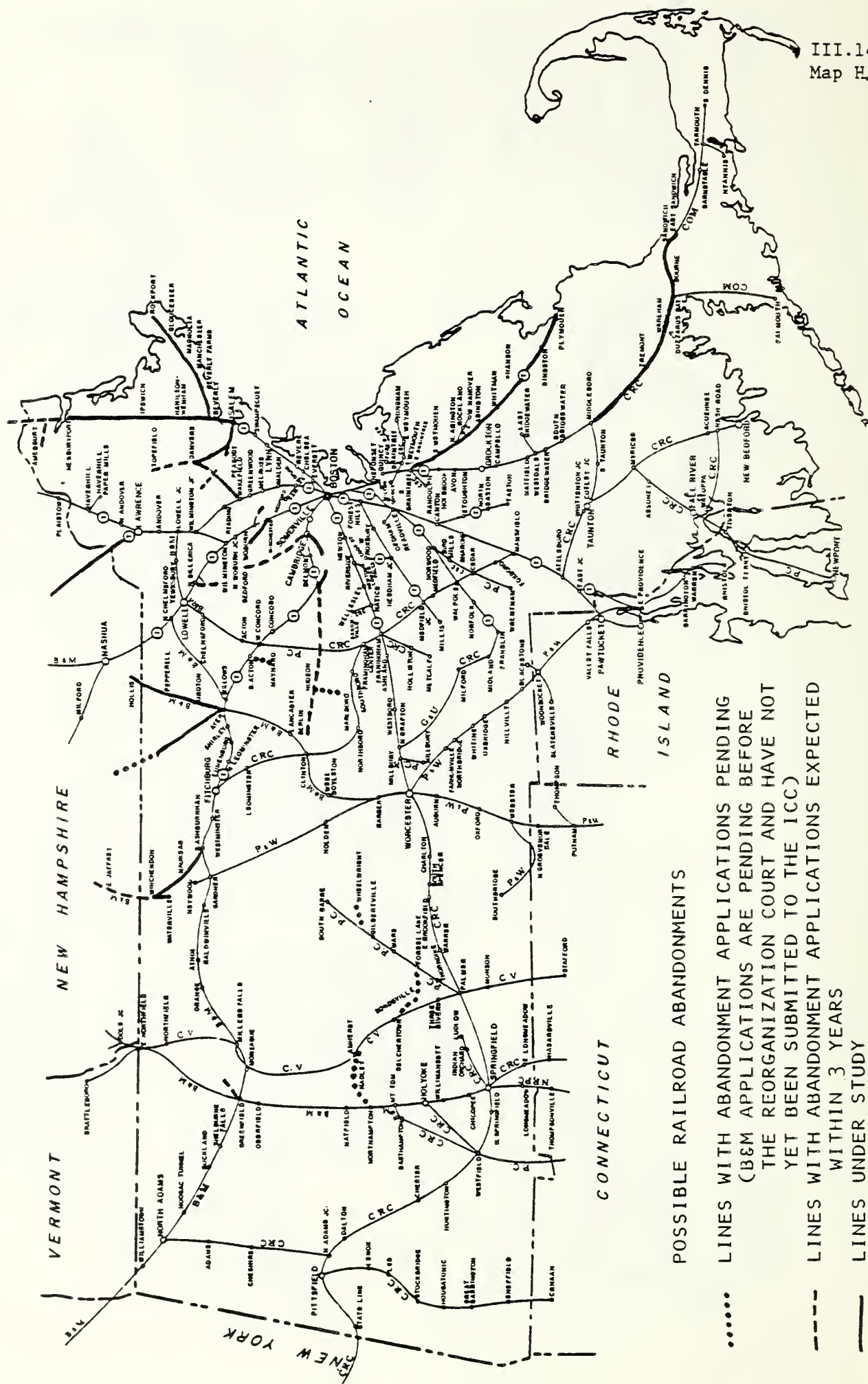
EOTC: 5/16/78

Source: Federal Register
November 4, 1976; 49 CFR 1121



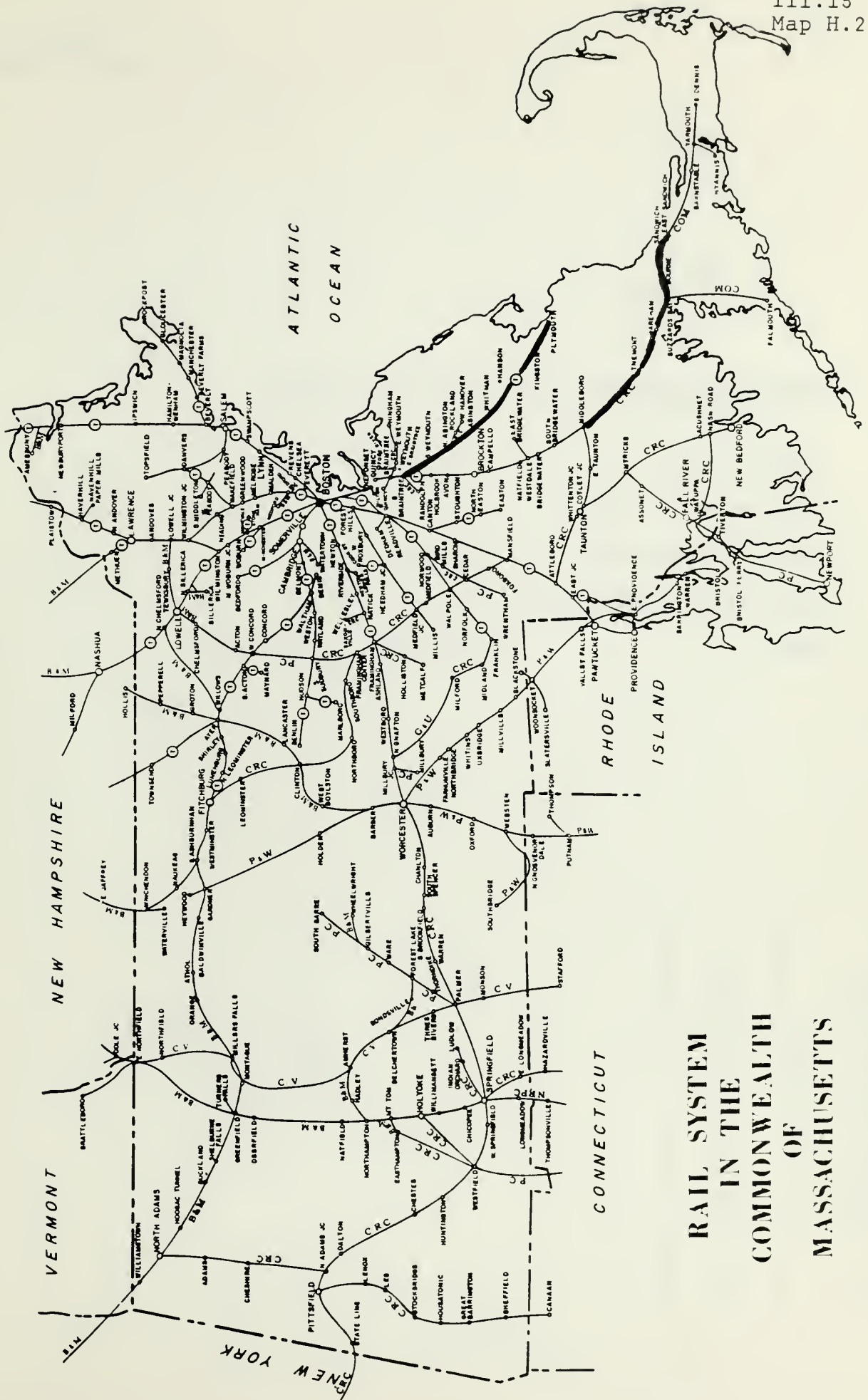
RAIL SYSTEM IN THE COMMONWEALTH OF MASSACHUSETTS

LINES ELIGIBLE FOR
TITLE VIII ASSISTANCE



POSSIBLE RAILROAD ABANDONMENTS

- LINES WITH ABANDONMENT APPLICATIONS PENDING
(B&M APPLICATIONS ARE PENDING BEFORE
THE REORGANIZATION COURT AND HAVE NOT
YET BEEN SUBMITTED TO THE ICC)
- LINES WITH ABANDONMENT APPLICATIONS EXPECTED
WITHIN 3 YEARS
- LINES UNDER STUDY

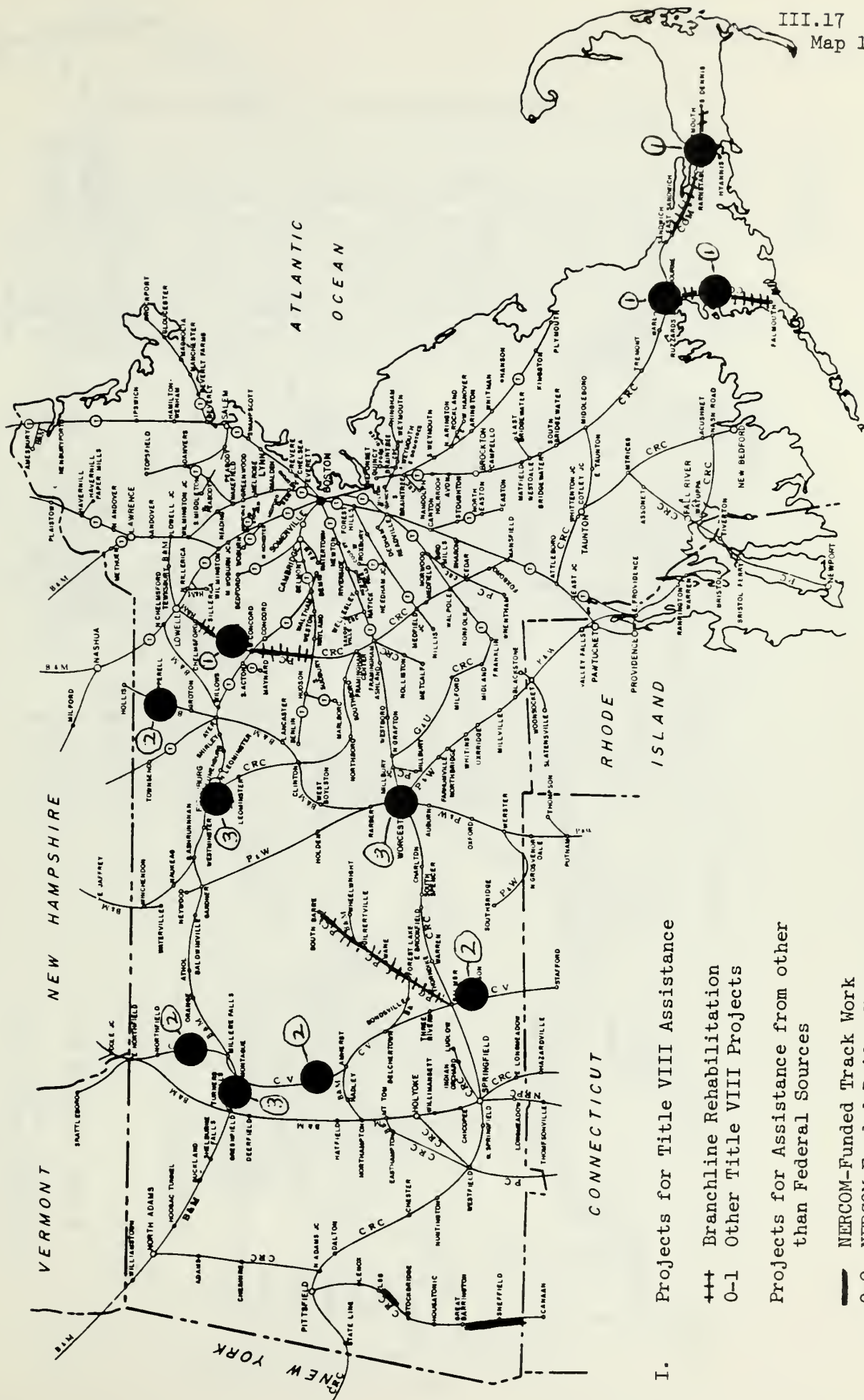


RAIL SYSTEM IN THE COMMONWEALTH OF MASSACHUSETTS

— Lines in Massachusetts Under Analysis by ConRail

LINES IN MASSACHUSETTS UNDER ANALYSIS BY CONRAIL

Tremont to End	2.3 miles
Buzzards Bay to Sandwich	7.5 miles
Alden to Buzzards Bay	19.8 miles
South Braintree to Plymouth	24.4 miles
TOTAL	54.0 miles

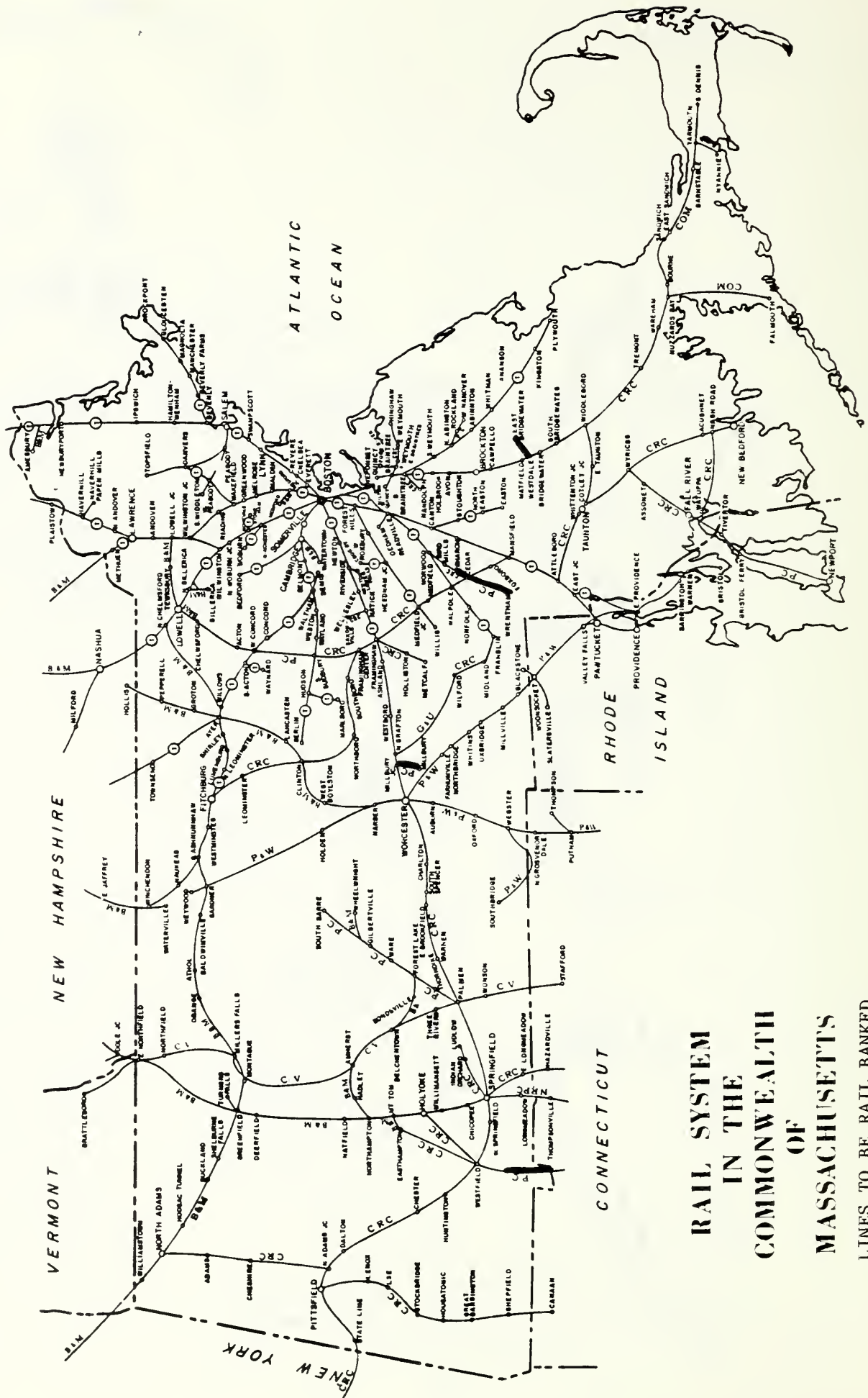


I. Projects for Title VIII Assistance

- +++ Branchline Rehabilitation
- 0-1 Other Title VIII Projects

Projects for Assistance from other
than Federal Sources

- 0-2 NERCOM-Funded Track Work
- 0-3 NERCOM-Funded Bridge Work
- 0-3 NERCOM-Funded Yard Work



**RAIL SYSTEM
IN THE
COMMONWEALTH
OF
MASSACHUSETTS**

LINES TO BE RAIL BANKED
FOR POTENTIAL OPERATION

Commodities Moved in the Massachusetts Rail System

Essentially all categories of commodities listed in the Standard Transportation Commodity Code Index are moved in the rail system in Massachusetts. In view of the recent series of accidents in the southern and mid-Atlantic states involving hazardous and potentially dangerous chemicals which have inflicted tragic consequences on life and property, we feel it is in the public interest to identify the extent of the movement of hazardous materials (49), chemicals and allied products (28) and petroleum and coal products (29) in our state.

The movement of hazardous materials in Massachusetts is significant due to the concentration of heavy rail operations in high population centers, a factor which can result in tragedy of horrendous proportions. In view of this circumstance, our planning activities include identifying measures that can be taken to remedy conditions that threaten life and property. These measures include analyses of the financial condition of railroads where poor financial health has resulted in poor right-of-way maintenance, operating management weaknesses, equipment weaknesses, poor labor practices and other circumstances which bear directly on the railroad's ability to maintain proper operating conditions.

While this office is not delegated with the authority to assure operating safety, which is the responsibility of the Department of Public Utilities, we are authorized to preserve the economic health of railroads providing essential services to the Commonwealth. It is within this framework, then, that we view this aspect of our planning function.

STANDARD TRANSPORTATION COMMODITY CODE TARIFF NO. 1-F

(For cancellation, see page II)

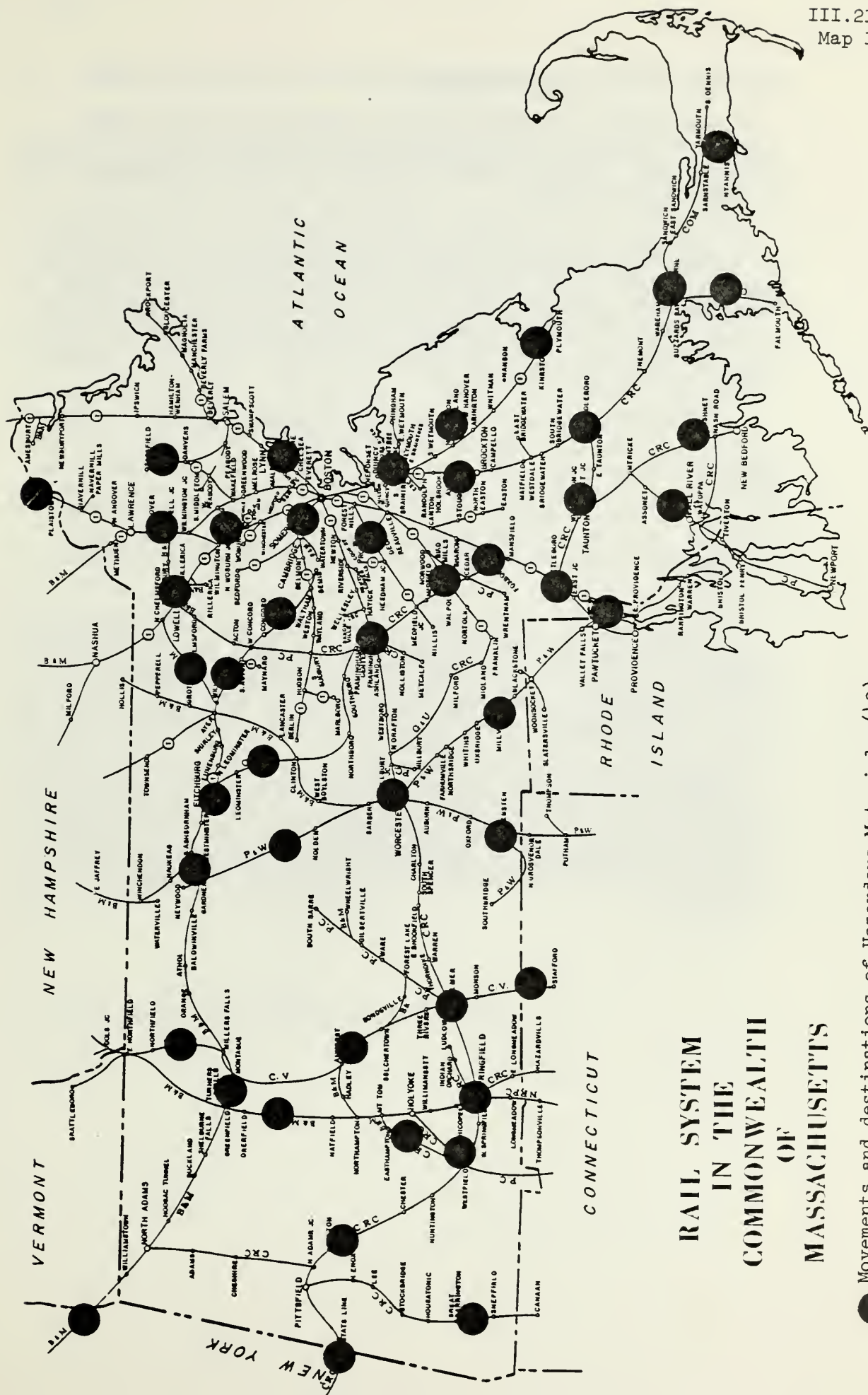
ISSUED NOVEMBER 10, 1977

EFFECTIVE JANUARY 1, 1978

MAJOR INDUSTRY GROUP NOS.

Group

01	Farm Products	348
06	Forest Products	355
09	Fresh Fish or Other Marine Products	357
10	Metallic Ores	359
11	Coal	361
13	Crude Petroleum, Natural Gas or Gasoline	363
14	Nonmetallic Minerals; except Fuels	365
19	Ordnance or Accessories	369
20	Food or Kindred Products	373
21	Tobacco Products; except insecticides — see Major Industry Group 28	389
22	Textile Mill Products	392
23	Apparel; also, other finished textile products or knit apparel	399
24	Lumber or Wood Products; except Furniture — see Major Industry Group 25	403
25	Furniture or Fixtures	413
26	Pulp, Paper, or Allied Products	421
27	Printed Matter	429
28	Chemicals or Allied Products	431
29	Petroleum or Coal Products	449
30	Rubber or Miscellaneous Plastics Products	453
31	Leather or Leather Products	459
32	Clay, Concrete, Glass or Stone Products	461
33	Primary Metal Products; inc. galvanized; except coating or other allied processing — see Major Industry Group 34	473
34	Fabricated Metal Products; except Ordnance — see Major Industry Groups 19 — Machinery, 35, 36, or 37 — Transportation Equipment	483
35	Machinery; except Electrical — see Major Industry Group 36	505
36	Electrical Machinery or Equipment, also, supplies	525
37	Transportation Equipment	535
38	Instruments or Photographic Goods; also, optical goods, watches or clocks	545
39	Miscellaneous Products of Manufacturing	549
40	Waste or Scrap Materials; viz. scrap or waste materials not identified by industry producing	559
41	Miscellaneous Freight Shipments	565
42	Containers, Shipping, Returned Empty; also, carriers or devices	569
43	Mail and Express Traffic	571
44	Freight Forwarder Traffic	573
45	Shipper Association or Similar Traffic	575
46	Miscellaneous Mixed Shipments; except Forwarder — see Major Industry Groups 44, and 45 — Shipper Associations	577
47	Small Packaged Freight Shipments	579
49	Hazardous Materials	613



RAIL SYSTEM IN THE COMMONWEALTH OF MASSACHUSETTS

Movements and destinations of Hazardous Materials (49),
Chemicals or Allied Products (28) and Petroleum or Coal
Products (29) in the state.

THE RAIL SYSTEM IN MASSACHUSETTS

The railroads in Massachusetts must be considered in the context of being part of the New England regional and the national rail systems. Without adequate connections, the New England rail system could not exist.

Inter-state movements of traffic east - west are provided by ConRail and the Boston & Maine via the Delaware & Hudson. In addition to the connections as detailed above, the D & H has a route to Potomac Yard for movement to the south and many western points. The D & H thus emerges as an important link with the B & M to provide a competitive transportation link between the Commonwealth and the rest of the U.S.

The traffic movements within New England often involve the B & M or the Central Vermont. Both railroads serve northern New England points either directly or indirectly through connections with other railroads and the Consolidated Rail Corporation and the Providence & Worcester which serve the southern tier of New England. The other shortline railroads within the Commonwealth are dependent upon these railroads for the interstate movement of freight.

In recognition of the importance of healthy mainlines, the Commonwealth has been participating in mainline rehabilitation through the expenditure of NERCOM funds within the Commonwealth and in conjunction with neighbor states. In addition, the Commonwealth supports a New England Regional Commission comprehensive study of the New England Railroad industry; the cost of the study is estimated at nearly one half million dollars. Massachusetts has also been actively participating in the Federal 503 studies of the 4(R) Act and has vigorously pursued a policy of stressing the importance of adequate rail service to the Commonwealth and New England by having had two mainlines connecting New England with the rest of the United States designated in Category A.

A. General Description of Railroad Companies

There are at present 16 railroad companies in Massachusetts. Much of the Penn Central was reorganized into the Consolidated Rail Corporation (ConRail) under the Regional Rail Reorganization Act. The Penn Central and the New York, New Haven and Hartford Companies retain certain properties in the Commonwealth. The Boston & Maine is currently reorganizing under Section 77 of the Bankruptcy Act. Of the remaining thirteen, four are operating companies-- the Central Vermont, the Providence and Worcester, the Grafton and Upton, and the Fore River Railroad. Two additional non-operating companies lease their rights-of-way to operating companies. Finally, five groups have organized in an attempt to become short line operators. These groups are the Bay Colony Railroad Corporation, the Western Connecticut Railroad Company, Cape Cod Railways, Massachusetts Central Railroad Corporation and the Millbury Railroad Corporation.

1. Operating Companies

Consolidated Rail Corporation (CRC)

In Massachusetts, ConRail operates 686 miles of mainline and branchline track of which 530 miles are owned by CRC.¹ In addition, the CRC operates over 355 highway crossings, 114 of which are unprotected, 11 are protected by audible and visual signals, three are protected by electric signals, four by flagmen and gates, and the remainder by cross-bucks and gates. The railroad also operates over 330 highway overpasses and 174 underpasses.²

In 1977, CRC generated 1,423,258,000 ton miles of revenue freight in Massachusetts. Total freight car miles amounted to 61,836,000 and train miles amounted to 1,329,412. Passenger operations generated 301,000 train miles, 10,269,341 passenger miles and 643,274 passengers carried. Revenues earned in the state were estimated at \$48,293,000.

¹ Based on the 1977, ConRail Annual Report

² Ibid

By 1980, 31.7 million tons are projected by Harbridge House³ to be handled on the Penn Central system (now CRC) in New England. This represents a 6.3 percent increase over 1973. These figures, based on 1973 and earlier data should probably be revised downward to reflect the slower economic growth since 1973.

Projected Totals: ConRail/New England

<u>Traffic</u>	<u>1973 Tonnage</u>	<u>1980 Tonnage</u>	<u>1973-1980 Growth Rate (%)</u>
Local	1,990,769	2,053,368	+3.1
Forwarded	2,576,774	2,712,580	+5.2
Received	12,716,340	13,526,329	+6.3
Bridge	<u>12,534,467</u>	<u>13,421,834</u>	<u>+7.0</u>
Totals:	29,818,350	31,714,111	+6.3

In all traffic types, excepting the local traffic, commodities carried by ConRail are highly diversified. The following gives significant commodity groups in each type of traffic according to the 1973 tonnage share, along with their projected growth rates.

<u>Share of Traffic Type 1973 (%)</u>	<u>STCC</u>	<u>Commodity Category (primary component)</u>	<u>1973-1980 Growth Rate (%)</u>
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LOCAL

(1)	49	1421	Crushed and broken stone	+ 2.0
(2)	23	2911	Petroleum refining products	- 1.1
(3)	7	4611	Mixed shipments	+ 8.0

FORWARDED

(1)	14	4511	Shippers association and similar traffic	+ 5.0
(2)	11	4411	Freight forwarder traffic	- 6.0
(3)	10	4611	Mixed shipments	+ 3.0
(4)	9	4021	Metal scrap, waste and tailings	+12.5
(5)	6	1421	Crushed and broken stone	0.0

³ Harbridge House, Inc., June 1975, Traffic Volume Projections for 1980: New England Railroads.

Share of Traffic Type 1973 (%)		STCC	Commodity Category (primary component)	1973-1980 Growth Rate (%)	
RECEIVED					
(1)	5	2621	Paper, except building paper (newsprint)	+	8.7
(2)	5	1471	Chemical and fertilizer minerals (rock salt)		0.0
(3)	4	2631	Paperboard, pulpboard, fiberboard	+	4.0
(4)	4	3312	Primary iron and steel products	+	6.0
(5)	4	2421	Lumber and dimension stock	+	5.0
(6)	4	2041	Flour and other grain mill products (flour and middlings)	+	8.0
(7)	3	3711	Motor vehicles and equipment (passenger cars, trucks)	-	4.8
(8)	3	1491	Misc. non-metallic minerals, NEC (peat, earth)		0.0
(9)	2	2432	Veneer and plywood	+	3.5
(10)	2	3714	Motor vehicle parts and accessories	+	3.0
BRIDGE					
(1)	16	2621	Paper, except building paper	+	11.2
(2)	9	1121	Bituminous coal		0.0
(3)	5	3714	Motor vehicle parts and accessories	+	17.0
(4)	4	2611	Pulp and pulp mill products	+	13.2
(5)	4	3295	Non-metallic earths and minerals, NEC	+	4.2
(6)	4	1011	Iron ores (iron concentrates)	+	12.0
(7)	3	0113	Grains (corn, oats)		0.0
(8)	2	2421	Lumber and dimension stock	+	1.1
(9)	2	2631	Paperboard, pulpboard, fiberboard	+	10.2

In the 1977 State Rail Plan, we had reported that ConRail had nearly a fifth of its system, over 2,900 miles of branchlines, under evaluation.

Nineteen of the 37 branchlines under study in the ConRail system were in Massachusetts. They totalled 133.5 miles--over one-fifth of the ConRail system in the Commonwealth. However, due to an outpouring of concern from the states in the ConRail operating area, ConRail revised its list of lines under study in December. The number of lines under study in Massachusetts was reduced to two lines.

EOTC continues to feel that ConRail has not yet tried to overcome many years of previous neglect on its branchlines. There has been very little maintenance, rehabilitation or sales effort expended on any of the lines under analysis. In fact, ConRail's experience of two years has not provided a sufficient record for an adequate evaluation nor sufficient time for ConRail to have given revitalization of these branchlines an adequate effort.

The depressing cloud of uncertainty and the threat of abandonment of rail lines must be lifted. Business and industry cannot make rail-related investment decisions in the face of such uncertainty. This uncertainty is an especially heavy burden on our efforts to revitalize the northeast economy. EOTC has requested the Consolidated Rail Corporation to make very clear how its abandonment decisions will be made and precisely what criteria will be applied. EOTC feels that ConRail policy should be against abandonment unless a branchline shows a continuous record of substantial loss with no hope for a turnaround. There should be no abandonment until ConRail has, through several years of intense revitalization effort, proved conclusively that a line does not contribute to the system. ConRail should utilize the analyses now underway to identify those branchlines which need ConRail's special effort to make them viable and permanent contributors to the Nation's rail system and economy.

Boston & Maine (B & M)

The bankrupt Boston & Maine Corporation is the second largest operating railroad in the Commonwealth after ConRail, with a total of 2,296 miles of track in the states of Maine, Massachusetts, New Hampshire, Vermont and New York. In Massachusetts, the railroad operates over 1,260 mainline, branch, yard, siding, switch and passing track miles radiating north and northwest from Boston.⁴

Two major southerly routes from Vermont and New Hampshire intersect with the east-west mainline and extend into the major central and western cities of Worcester and Springfield. Local branch line operations further extend service to nearly one hundred smaller towns and cities scattered throughout the northerly half of the state.

As of January 1, 1977, the Boston & Maine Corporation operated 168 diesel locomotives, 3,638 assorted cars and 92 cabooses. The average rail weight throughout the B & M system was 115 pounds per yard. Net ton miles in 1977 were 2,538,827 with gross revenues of \$85,656,355. Total locomotive unit miles came to nearly 6,319,197 and locomotive train miles amounted to 1,748,430.⁵

The B & M has interchange service with the Canadian Pacific, Canadian National, Central Vermont, Maine Central, CRC, and the P & W. It is the only link for northern New England railroads to other major lines within the United States. The railroad maintains yards in Lowell, Worcester, Ayer, Boston, Fitchburg, Lawrence, East Deerfield, and Springfield, Massachusetts.

In general, many of its most heavily used lines are now operating at increased speeds as a result of rehabilitation grants from the New England Regional Commission. These lines include: Boston to East Deerfield to Rotterdam Junction; Boston to Lowell; Lowell to Willows; and, Wilmington to Portland, Maine.

⁴ MCA Engineering Corporation, March 1975, Conditions of Railroad Track Facilities in New England

⁵ B & M 1977 Annual Report to the ICC

To summarize past projects, in 1976 and 1977 the B & M participated quite extensively in grant programs for labor costs funded through the NERCOM. The 1976 program involved work to rail lines and bridges and miscellaneous projects through the Commonwealth. Tie renewals, track surfacing and rail replacements were done on major segments of the Fitchburg mainline. For instance, 44,000 ties were installed in 66.7 miles of track.

Bridge clearances were increased under 5 bridges on the Portland mainline; this allowed the B & M to lift restrictions on piggyback service to Portland, Maine and other Maine points. Where previously only the smaller trailers could be moved via rail to Portland and the bigger ones had to be offloaded at Ayer, Massachusetts, and trucked over the road to Portland, the increased clearances allow most of the trailers used in railraod service to move via rail directly. In addition, the NERCOM funds were utilized by the B & M to weld several miles of rail, install insulated joints, and do miscellaneous repair to 15 bridges in various parts of the Commonwealth.

The 1977 projects were less extensive due in part to a lower level of funding, but the importance of these projects were of no less consequence. In a contract involving a coordinated project in New Hampshire, Vermont and the Commonwealth, increased clearances on the Connecticut River line now permits the handling of high and wide loads between points in the U.S. and Canada and many parts of New England, particularly central and eastern Massachusetts. This improved route allows the B & M (and Central Vermont) to compete for traffic that heretofore could not be moved via rail but by alternative modes at higher costs.

The second contract involved projects to increase or maintain train speeds, and improve transit time reliability, on various mainlines. The Fitchburg line received more than 5,000 new ties with 7.2 miles surfaced. The Connecticut River line had 10,000 ties installed and 23.4 miles of track surfaced. Maintenance was done on 5 mainline bridges, 38 miles of pole line were rehabilitated, and 34.5 miles of insulated joints were replaced.

In addition to the NERCOM program, the Boston & Maine Railroad has undertaken a continuing major rehabilitation effort with its own funds throughout its system. The program includes insertion of continuous welded rail, surfacing and ballasting. Rehabilitation of 75 frogs, 192 switch points, 175 switch stands, 165 switch rods, 40 connecting rods, repair of over 1,000 small tools and reclamation of over 60,000 spikes represents a savings of \$340,000, based on replacement costs of this material. This work is representative of the general rebuilding the Boston & Maine has been doing since bankruptcy.

In 1973, the B & M carried 14.9 million tons. In 1975 Harbridge House⁶ projected that in 1980 slightly less than 16 million tons of traffic will be handled by the B & M. This represented a 7.1 percent increase over the 1973 volume.⁷ The largest increases were expected to occur in forwarded and local traffic, although, their total volumes were less than the other traffic types.

The B & M has revised these projections and now estimates that growth will take place in piggy-back traffic which could add 500 thousand tons if cooperative ventures with connecting railroads materialize. The piggy-back marketing effort seeks to add commodities that have not been moved regularly by rail in or out of New England.

Terminating businesses in Massachusetts is declining, also, due to the shift in the nature of Massachusetts business. However, bridge traffic from the expanding Maine paper industry has increased with destinations now including Connecticut, Massachusetts, Florida, and the mid-west.

B & M estimates that optimistic projections for 1980 would be 14.5 million tons moved while 14 million are most likely.

6

Harbridge House, Inc., June 1975, Traffic Volume Projections for 1980: New England Railroads

7

Temple, Barker, and Sloane, Inc., in its Forecast of Traffic and Revenues 1974-1980, prepared for the United States Railway Association, have projected a 7.7 percent growth rate for the B & M.

Totals Projected by B & M

<u>Traffic</u>	<u>1973 Tonnage</u>	<u>1977 Tonnage</u>	<u>Growth Rate (%)</u>
Local	799,081	605,616	-(24.2)
Forwarded	1,704,589	1,191,602	-(30.1)
Received	7,885,372	6,495,323	-(17.6)
Bridge	4,542,298	4,750,506	+ 04.6
	<u>14,931,340</u>	<u>13,043,047</u>	<u>-(12.6)</u>

The major commodities handled by the B&M were projected by Harbridge House to show the following growth rates:

<u>Share of</u> <u>Traffic Type</u> <u>1973 (%)</u>	<u>STCC</u>	<u>Commodity Category</u> <u>(primary component)</u>	<u>1973-1980</u> <u>Growth Rate (%)</u>
LOCAL			
(1) 40	1441	Sand and gravel (gravel)	+ 6.0
(2) 20	291	Products of petroleum refining (residual fuel oil)	+77.0
(3) 11	4021	Metal scrap, waste, tailings	+ 6.0
FORWARDED			
(1) 13	262	Paper, except building paper	+12.0
(2) 8	263	Paperboard, pulpboard, fiberboard	+15.0
(3) 7	264	Converted paper and paperboard products (sanitary products)	-15.0
(4) 7	4021	Metal scrap, waste, tailings	+ 8.0
(5) 5	2062	Sugar, refined, cane and beet	+10.0
RECEIVED			
(1) 13	1121	Bituminous coal	+ 0.0
(2) 6	261	Pulp or pulp mill by-products (pulp)	+12.0
(3) 5	262	Paper, except building paper	+10.0
(4) 5	263	Paperboard, pulpboard and fiberboard	+12.0
(5) 5	281	Industrial and organic and inorganic chemicals	+15.0
(6) 5	324	Hydraulic cement (Portland)	+ 5.0
(7) 4	147	Chemical and fertilizer minerals (rock salt)	+ 4.0
(8) 4	2041	Flour and other grain mill products (wheat flour)	+ 8.0

(9)	3	291	Products of petroleum refining (residual fuel oil)	-31.6
(10)	3	331	Steel works and rolling mill products (iron and steel)	+ 3.0

BRIDGE

(1)	29	262	Paper, except building paper	+ 7.6
(2)	9	329	Abrasive or asbestos products	+ 6.0
(3)	8	0113	Grain (corn)	+ 0.0
(4)	5	261	Pulp or pulp mill products (pulp)	+13.0
(5)	5	147	Chemical or fertilizer minerals (rock salt)	+ 5.0
(6)	4	2042	Prepared feed, animal fish, and poultry	+ 9.0
(7)	4	264	Converted paper and paperboard products	+ 7.0

On December 12, 1975, the B&M submitted a reorganization plan to its bankruptcy court and to the ICC. The first step of this reorganization plan called for the sale of approximately two hundred and seventy miles of Boston-area rights-of-way to the Massachusetts Bay Transportation Authority. The necessary purchase and sale agreement was approved by the ICC on June 25, 1976, and was consummated on December 27, 1976. The B&M lines acquired by the MBTA are marked on Map "A" included in Chapter III. B&M retained easements for all necessary freight operations.

The B&M has petitioned its bankruptcy court for permission to seek abandonment of 47 miles of freight branch lines in Massachusetts. The lines proposed for abandonment are:

Northampton to Wheelwright	38.7 miles
Townsend (Valuation Station 567 + 45) to New Hampshire State Line	3.3 miles
South Acton to Maynard	2.7 miles
Hudson to Marlboro	2.19 miles

The Executive Office of Transportation and Construction is evaluating the importance of each of these branch lines and has taken steps to resolve public concern through discussion with the affected parties. The evaluations also consider the use of federal and state funds for subsidized operations.

The Northampton to Wheelwright line has been determined to be vital to the local area and to the Commonwealth. Industry along the line would be forced to close if service were discontinued. The Ware River Valley, through which this line passes, is characterized by high unemployment. Loss of rail service--and the resulting loss of jobs--would be disastrous.

The Massachusetts Central Railroad has agreed to commence operations on this line when service is terminated by the B&M. The B&M has agreed to fund certain track improvements necessary for the Massachusetts Central to commence operations.

The line from Townsend to the New Hampshire State Line has seen virtually no service for several years. Little or no demand presently exists. The Commonwealth has no plans to oppose the B&M's abandonment application.

The South Acton to Maynard line has been out of service for several years. The only industrial building on the line--an old mill complex-- is now occupied by a very successful manufacturer of mini-computers. Diversion to the rail mode of any type of inbound or outbound traffic at this facility is most unlikely. This line is owned by the Massachusetts Bay Transportation Authority. The Commonwealth has no plans to oppose the B&M in its abandonment application.

The Hudson to Marlboro line has seen little or no service in recent years. Little or no demand exists or is anticipated on this line. The Commonwealth has no plans to oppose the B&M's abandonment application.

Central Vermont (CV)

The Central Vermont Railway, Inc. with 377 miles of track and trackage rights, serves the states of Connecticut and Vermont in addition to Massachusetts. Its operations extend into Canada as a natural connection with its parent company, the Canadian National.

The CV interchanges freight in Massachusetts with the Boston & Maine and ConRail. Interchange with the Boston & Maine takes place in Massachusetts in the towns of Belchertown and Millers Falls. ConRail interchange takes place in Palmer.

The railroad enters the Commonwealth on its northerly border at the town of East Northfield in a southerly route taking it through Millers Falls, Montague, North Amherst, Amherst, Belchertown, Three Rivers (Palmer), Monson, South Monson, and to the Connecticut border.

The railroad maintains a small yard in Palmer which would require a minimum expenditure of more than \$600,000 for upgrading based on a 1975 survey completed by MCA Engineering Corp.

CV operates 55 miles of mainline and 9.28 miles of side track in Massachusetts. The total operating freight revenues in 1977 amounted to \$13,263,000. During the reported year, the company had 16 diesels in operation which generated 273,510 train miles and 559,452,000 gross ton miles. Net ton miles of revenue freight amounted to 267,883,000.¹¹

The company installed 29,803 ties in its system in 1977. The railroad operates over 50 grade crossings, 20 of which are unprotected and 30 of which are protected by audible and visual signals. There are 14 highway and roadway bridges over the CV system in Massachusetts.¹¹

The CV recently installed a switch at Palmer to accomodate a new sidetrack being constructed in the Palmer Industrial Park.

The railroad indicates that there are on-going plans to establish a TOFC terminal in their Palmer yard. The company is also close to final negotiations for the installation of a new siding for Seder Foods Corporation of Palmer.

In 1973, the Central Vermont carried 2.3 million tons. Harbridge House¹² projects: "the total rail traffic of the Central Vermont is projected to have a growth rate of 7.3 percent by 1980, thereby increasing its 1973 volume of 2.3 million tons to slightly over 2.5 million. Shipments bridging the Central Vermont will show the greatest increase." In 1976, the CV carried 2.2 million tons. The 1976 figures show a decline in the CV's tonnage. Therefore, the projections based on 1973 data and should probably be revised downward to reflect the economic slow-down since 1973.

Projected Totals: CV

<u>Traffic</u>	<u>1973 Tonnage</u>	<u>1976 Tonnage</u>	<u>1980 Tonnage</u>	<u>Growth Rate (%)</u>
Local	26,110	17,701	27,025	+3.5
Forward	109,036	99,726	111,410	+2.2
Received	829,034	829,745	880,912	+6.2
Bridge	<u>1,369,515</u>	<u>1,253,702</u>	<u>1,484,118</u>	<u>+8.4</u>
Totals:	2,333,695	2,200,874	2,503,465	+7.3

¹¹ Central Vermont 1976 Annual Report to the ICC

¹² Harbridge House, Inc., June 1975, Traffic Volume Projections for 1980: New England Railroads.

(Central Vermont--cont'd.)

Major commodities carried by the CV are projected to show the following growth rates.

<u>Share of Traffic Type, 1973 (%)</u>		<u>STCC</u>	<u>Commodity Category (primary component)</u>	<u>1973-1980 Growth Rate (%)</u>
LOCAL				
(1)	66	2042	Prepared feeds, animal, fish, and poultry	0.0
(2)	22	2432	Veneer and plywood	+19.0
FORWARDED				
(1)	20	265	Containers and boxes, paperboard	+10.0
(2)	18	263	Paperboard, pulpboard, fiberboard	+15.0
(3)	12	2432	Veneer and plywood	+ 8.0
(4)	12	2611	Pulp and pulp mill by-products (pulp)	+ 3.0
RECEIVED				
(1)	19	0113	Grain (corn)	+ 9.0
(2)	13	2041	Flour and other grain mill products (wheat middlings, by-products)	+15.0
(3)	12	2042	Prepared feeds, animal, fish, and poultry	+17.0
(4)	6	1121	Bituminous coal	-69.0
(5)	5	2912	Liquified petroleum and coal	+23.0
<u>Share of Traffic Type, 1973 (%)</u>		<u>STCC</u>	<u>Commodity Category (primary component)</u>	<u>1973-1980 Growth Rate (%)</u>
BRIDGE				
(1)	26	262	Paper, except building paper	+14.0
(2)	13	2611	Pulp and pulp mill products	+16.0
(3)	9	2421	Lumber and dimension stock	- 3.0
(4)	6	329	Abrasives and asbestos products (light-weight aggregates)	-21.5
(5)	3	2912	Liquified petroleum and coal gases (LPG)	-10.0
(6)	3	0113	Grains (corn)	+10.0
(7)	2	147	Chemical and fertilizer minerals (phosphate, rock salt)	-20.0
(8)	2	149	Miscellaneous non-metallic minerals	+ 6.0
(9)	2	3241	Hydraulic cement (Portland)	+26.0
(10)	2	263	Paperboard, pulpboard, fiberboard	+10.0

Providence and Worcester (P & W)

The Providence and Worcester Railroad, totaling 19¹/₄ miles of main line, siding and switching track, links the city of Providence, Rhode Island, Plainfield and Willimantic, Connecticut with the Massachusetts Cities of Worcester and Gardner. At Worcester, the P & W interchanges with ConRail and the B & M. At Gardner, the railroad interchanges with Boston & Maine on the east and Mechanicville, New York, on the west. Total P & W track miles in Massachusetts is 83.6.

In its six year operating existence, the Providence and Worcester Railroad has demonstrated itself to be an aggressive marketer of its services. It operates nine diesel locomotives, 89 owned cars, 44 leased insulated box cars, and 3 cabooses. In 1977, the railroad had generated 89,428 train miles and 1,780,543 car miles. Its revenue tons amounted to 1,217,160, which generated freight and switching revenues of \$5,520,019.¹⁴ The P & W leases 600 fifty-foot general service box cars and more than 600 containers/trailers for TOFC shipments. In 1978-79 the railroad will receive an additional 600 containers/trailers, 1000 box cars and 400 flat cars under a lease agreement. This will enable the railroad to meet the shipping needs of its consignees much better than it has heretofore when it had 12 cars under its control and had to rely upon connecting carriers for a box car supply.

The carrier operates 83 miles of track over 57 grade crossings in Massachusetts; one is unprotected, 49 are protected by electric signals, one by visual signals only and six by flagmen. The average weight of rail is 115 pounds. The carrier maintains its rail on a 3,200 ties-per-mile basis.

The P & W has undertaken extensive maintenance of way rehabilitation on its lines, either financed from internal funds or through NERCOM funds. During 1977 the railroad replaced 43,013 ties and 71-75 tons of 107 to 115 pound rail.

In 1977, the P & W received \$275,500 of NERCOM funds for improvements to the Worcester yard that enabled the P & W to provide a higher level of service which is already high by New England standards. The Worcester yard is the key yard on the P & W system. More than 80% of all P & W traffic moves through it. The work involved the renewal of 20 switches and installation of 2,000 ties.

The P & W's own program of improving the right-of-way was particularly aggressive in 1976 when it accounted for over 35% of gross revenues. This is far above the railroad industry's average of 14-18% and indicates its intention of building a railroad that is quite capable of handling ever-increasing traffic.

On April 1, 1976, the P&W acquired rail lines in Massachusetts, Connecticut and Rhode Island, most of which were slated for abandonment under USRA's Final System Plan. These lines include

Webster to Southbridge, USRA Line No. 40	10.6 miles
Auburn to Putnam (CT), USRA Line No. 678A	20.5 miles
Worcester to Auburn	4.0 miles
Putnam, CT, to Plainfield, CT	17.8 miles
Plainfield, CT, to Willimantic, CT	26.0 miles
Cranston, RI, to Pontiac, RI	3.9 miles

As a result of these acquisitions, P & W doubled its traffic volume and became a three-state carrier.

Harbridge House¹⁵ projections indicate that major commodities carried by this railroad are expected to increase as follows:

<u>Traffic Type,</u> <u>1973 (%)</u>	<u>STCC</u>	<u>Commodity Category</u> <u>(primary component)</u>	<u>1973-1980</u> <u>Growth Rate (%)</u>
FORWARDED			
(1) 26	3312	Primary iron and steel products	+ 8.0
(2) 18	2661	Building paper and building board	+ 18.0
(3) 11	4024	Paper wastes and scrap	+ 9.0
(4) 8	4021	Metal scrap waste and tailings	+ 12.0
RECEIVED			
(1) 18	1471	Chemical and fertilizer minerals	+ 4.0
(2) 12	4021	Metal scrap, waste, and tailings	+ 9.0
(3) 7	2082	Malt liquors	+ 19.0
(4) 6	3295	Non-metallic earths and minerals	+ 8.0
(5) 6	2621	Paper, except building paper	+ 2.0
(6) 4	2821	Plastic materials	+ 19.0
(7) 3	2041	Flour & other grain mill products	+ 3.5
(8) 3	2647	Sanitary paper products	+ 20.0

¹⁵ Harbridge House, Inc., Ibid.

Grafton and Upton Railroad Company (G & U)

Headquartered in Hopedale, Massachusetts, the Grafton and Upton is owned 95.6% by Rockwell International Corporation of Pittsburgh, PA. The railroad operates a total of 20.32 miles of track including siding and switches between the cities of North Grafton and Milford, Massachusetts. Operating with nine employees and two diesels, the railroad carried 29,816 revenue tons and produced 228,184 revenue ton miles on its rights-of-way in 1977. Total operating revenue amounted to \$110,313.

This shortline railroad operates over 34 highway crossings and two bridges. Average rail weight is 85 pounds. In 1977 the company replaced 216 ties on a basis of ¹⁶2,880 ties per mile. Its diesels accumulated 14,777 train miles.

Fore River Railroad Corporation

The Fore River Railroad Corporation is owned and operated by the General Dynamics Corporation of St. Louis, Missouri. The company's ship building operation in Quincy and the Proctor and Gamble manufacturing operations are the principal users of the line.

Operations take place between the city of Quincy and the town of Braintree on 3.76 miles of track which include 1.35 miles of switching track. The railroad owns 1.83 miles of track and leases 1.93.

Rail weights range from 85 to 115 pounds. Eleven company employees operate the railroad: two as an extension of their General Dynamics duties and nine as full-time railroad employees. The line is operated with three diesels which moved 1896 revenue cars and 1,810 non-revenue cars producing gross revenues of \$379,468.¹⁷ This railroad has become one of the more successful small railroads in New England.

2. Non-Operating Companies

Stony Brook Railroad Corporation (SB)

The Stony Brook Railroad Corporation is headquartered in Boston and is 62.1% owned by the B & M. Its 11-mile long right-of-way runs from the junction called Willows (east of Ayer) to North Chelmsford; it forms part of the east-west mainline of the B & M. Stony Brook trackage also includes an additional 6.41 miles of side track, switching and yard track. The line is leased by the B & M which maintains the right-of-way and operates the line as part of its own system.¹⁸

¹⁶ Grafton and Upton 1977 Annual Report to the ICC (an update).

¹⁷ 1977 Fore River Railroad Annual Report to the ICC (an update).

¹⁸ Stony Brook Railroad 1974 Annual Reprot to the ICC (an update).

Vermont and Massachusetts Railroad Company (V&M)

The V&M is headquartered in Fitchburg, Massachusetts, and owns a 60-mile line of right-of-way from that city to Greenfield, Massachusetts, and a segment of track to Turner's Falls, Massachusetts. Crossovers, turnouts, way switching and yard switching add another 62 miles of track to bring the total track mileage owned by the company to 122 miles. The company leases its line to the B&M under a 999-year lease dating from the 1800's. The line is a component of the B&M east-west mainline.¹⁶

Norwich and Worcester Railroad Company (N&W)

The N&W is headquartered in Worcester, Massachusetts. At the present, the N&W owns no rolling stock and does not engage in carrier activities. Since most of its properties and other physical assets were conveyed to ConRail or the P&W on April 1, 1976, it is doubtful if this railroad will ever become an operating railroad.

Holyoke and Westfield Railroad Company

Most of the physical assets and properties were conveyed to ConRail April 1, 1976. Prior to this time it was a leased line of the Penn Central Railroad. When it was a leased line, it held title to 10.40 miles of right-of-way with accompanying trackage in switches and yards and most of the stock was held by the City of Holyoke, Massachusetts. In June 1977 Conrail listed this line as under study for potential abandonment. However, since that time, the line has been removed from the listing and continues to be operated by ConRail.

New York, New Haven and Hartford Railroad

The New York, New Haven and Hartford Railroad is primarily a paper railroad holding securities in the Consolidated Rail Corporation via securities which had been held in the Penn Central. The New York, New Haven and Hartford Railroad does not engage in carrier services.

¹⁶ 19 Vermont and Massachusetts 1974 Annual Report to the ICC (an update.)

3. Newly Chartered Companies

Five business groups have expressed an interest in running short line railroads in the Commonwealth. A well-run and well-managed short line railroad can, in many cases, provide a higher quality of service at a lower cost on light density branch lines than can a major trunk line railroad. In particular, a responsible short line has the potential to be more sensitive to local business opportunities.

This office has worked closely with several groups making it clear that our intention is to insure long-range rail freight service. As all of the prospective short line rail operations concern areas with high unemployment and attractive industrial development potential, our objective is to provide present businesses with dependable service which will be helpful in attracting new business development.

The Bay Colony Corporation

Bay Colony Railroad, headquartered in Wareham, maintains its desire to service the rail freight needs of Cape Cod from Middleboro to Hyannis, South Dennis and Falmouth. The company was incorporated in 1973 by a group of local businessmen with the goal of retaining and improving rail service to Cape Cod. The company received a charter to operate a railroad in 1977.

The Western Connecticut Railroad Company, formerly the Berkshire Railroad Company

Headquartered in Berlin, Connecticut, the Western Connecticut Railroad Company was granted its name change and an extension of its charter on April 20, 1978 under provisions of a special act of the Connecticut General Assembly. The company proposes to assume operations as an independent shortline freight carrier on the rail lines extending from South Norwalk, Connecticut to North Adams, Massachusetts, according to correspondence with the company, if ConRail should decide that those two lines cannot be operated profitably.

Under the terms of the Special Act, the railroad company has been given authority to operate passenger and freight service on the Waterbury to Torrington branch and passenger service on the Waterbury to Hartford branch line in Connecticut. According to the company, the Torrington Branchline was recently determined to be unprofitable to operate as the result of a profit-and-loss study by ConRail. Therefore the company is involved in discussions with ConRail and the Connecticut Department of Transportation about transfer of the line from ConRail to the Western Connecticut railroad possibly as early as the end of this year.

Cape Cod Railways, Inc.

The Samuel M. Pinsly Company maintains its interest in operating a short line railroad, to be called Cape Cod Railways, Inc., on Cape Cod from Middleboro to Falmouth, Hyannis and South Dennis. The company plans to formulate an independent freight and passenger/excursion line and has been a shortline operator for forty years operating four successful short line railroads in Vermont, New Hampshire, Kentucky, and South Carolina.

Massachusetts Central Railroad Corporation

Incorporated by an act on December 16, 1975, the Massachusetts Central Railroad has plans to become a short line freight railroad and passenger excursion line on the so-called Wheelwright line of the B & M. This line runs from Northampton to Wheelwright with sections over the CV and USRA Line number 8. The B & M is supporting the MC's taking over operations before the ICC in the MC's application for a car service order.

The long term plan of the MC is to become the designated operator of USRA #8, the Ware River Secondary Track, thereby combining its operation of the Wheelwright branch with that of the Ware River Secondary Track.

The Massachusetts Central Railroad has been negotiating a contract as a carrier for Ludlow Papers & Packaging to move rail freight bound for and originating from that company at an interchange with ConRail in the Ware Yards.

The long-term interests of this railroad company are the eventual acquisition of the B & M trackage between Northampton and Bondsville and continued contract (designated) operation of the Ware River Secondary Track.

The Millbury Railroad Corporation

The Millbury Railroad Corporation was officially incorporated in 1976. MRC proposes to own and operate the Millbury to Millbury Junction line which is currently owned by the Penn Central estate. Rail freight service on that line has been discontinued but the former users of that service have not relocated and have expressed interest to use rail once again.

B. Description Of Passenger Services

The rail passenger services presently operated in the Commonwealth consist of intercity operations by Amtrak and Boston area commuter operations by the Boston & Maine.

1. Intercity Operations

Amtrak

The principal Amtrak operations in Massachusetts are those from Boston southward through Providence, Rhode Island, and New Haven, Connecticut, to New York and points south and west and from Springfield southward to Hartford, Connecticut, and New Haven, Connecticut, and points south and west. Between Boston and New York, there are approximately ten trains per day each way. Between Springfield and Hartford or New Haven, there are approximately eight trains daily each way.

In addition, Amtrak operates one train per day each way between Montreal, Quebec, and Washington, D.C., and one train per day each way between Boston and Chicago, Illinois. The Montreal-Washington trains make stops in Springfield and Northampton. The Boston-Chicago trains stop in Boston, Framingham, Worcester, Springfield and Pittsfield, Massachusetts.

The route between Boston and New York via Providence, known as "the Shore Line," is the main line of the "Northeast Corridor." In Massachusetts, this route is owned by the Massachusetts Bay Transportation Authority (MBTA) and is presently under the operational control of Amtrak. A massive improvement program (the Northeast Corridor Improvement Program) is underway which will result in trip times of 3 hours, 40 minutes between Boston and New York. The congressionally-mandated deadline for achievement of this schedule is early 1981. Three-hour trip times are anticipated later in the 1980's. Massachusetts has appropriated \$18,000,000 to cover (in full) the "state share" of this program and is the first state to do so.

The route between Springfield and New Haven is also part of the Northeast Corridor. This track is owned and operated by Amtrak. Together with the ConRail track between Boston and Springfield, this track constitutes the "Inland Route."

The Montreal-Washington train is operated by Amtrak on Amtrak track as far north as Springfield, Mass. North of Springfield the train follows the Boston and Maine Railroad and is operated by crews of that railroad. Amtrak's Boston-Chicago train operates on ConRail track including the Boston-Springfield portion of the Inland Route.

Three additional service improvements are anticipated between now and August, 1978: Amtrak plans to restore track to a twelve-mile piece of former Penn Central right-of-way between Pittsfield and Albany. Amtrak owns this right-of-way which was traditionally the route of passenger trains into Albany. This will eliminate a long, slow back-up move which the Boston-Chicago trains must now make. Approximately one hour will be deleted from the schedule between Pittsfield and Albany. This is being funded entirely by Amtrak.

Secondly, restoration of through service between Boston and New York via the Inland Route is planned. (Currently, this trip involves transfers at both Springfield and New Haven, and is limited to one daily trip in each direction with the eastbound trip further complicated by the frequent late arrival at Springfield of the Chicago to Boston train.) Under a scheme currently being negotiated by Massachusetts and Amtrak, certain improvements (primarily reverse-signaling and cross-overs) to the ConRail track between Boston and Springfield will be made with 100% state funds in order to enable operation of viable passenger schedules on this heavily used freight route. In return, Amtrak will operate the service without subsidy. This will be a very valuable service, serving the major Inland Route cities of Worcester, Springfield and Hartford as well as providing easy access to passenger trains for residents of southern New Hampshire and Maine. A new beltway station is anticipated at Route 495.

Thirdly, Amtrak service from New York City to Cape Cod is planned. This service will operate over the Northeast Corridor between New York City and Attleboro, Massachusetts. It will leave the corridor at Attleboro and travel via Taunton to Buzzards Bay. At Buzzards Bay, the train will split with one segment going to Falmouth/Woods Hole and the other segment going to Hyannis. A new park-and-ride station is anticipated on the mid-Cape highway (Route 6) north of the downtown Hyannis station. Under a scheme currently being negotiated between Amtrak and Massachusetts, certain improvements (mostly track work) will be made to the ConRail track between Attleboro and Buzzards Bay. These improvements, which are necessary for viable operation of passenger service, will be made with 100% state funds. In return, Amtrak will agree to operate the service without subsidy. This will be a restoration of service on one of the New Haven Railroad's most popular routes, hopefully helping to lessen the major traffic problems that exist on the limited number of highways and bridges that lead to Cape Cod.

2. Commuter Rail Services (CRR)

The Commonwealth of Massachusetts and the Massachusetts Bay Transportation Authority (MBTA) support extensive commuter rail passenger service radiating south, west, and north of Boston. To preserve, improve and facilitate continuation of these services, the MBTA has acquired 145 miles of former Penn Central rights-of-way and some 270 miles of Boston & Maine rail rights-of-way. Included in these purchases are all existing rolling stock used in commuter rail passenger service, together with extensive support facilities, shops and real estate formerly owned by the Boston and Maine Corporation.

As of March 13, 1977, the Boston & Maine Railroad provides for the operation of all Boston suburban commuter rail service under contract to the MBTA.

MBTA Commuter Rail service is operated by the Boston & Maine from Boston to the following cities and towns:

Belmont	Swampscott	Natick
West Medford	Concord	Framingham
Reading	Lowell	Needham
Hamilton	Melrose	Norwood
Rockport	Salem	Walpole
Waltham	Manchester	Norfolk
Woburn	Winchester	Franklin
Lynn	South Acton	Sharon
Ipswich	Wakefield	Mansfield
Billerica	Beverly	Attleboro
Lincoln	Gloucester	Pawtucket-
Cambridge	Weston	Central Falls, R.I.
Wilmington	Newton	Canton
Malden	Wellesley	Stoughton
Providence, R.I.		

All service is operated under contract to the MBTA.

Because of funding arrangements for non-MBTA communities, the following cities and towns have reluctantly been forced to suspend commuter rail service for budgetary reasons:

Haverhill
 North Andover
 Lawrence
 Andover
 Newburyport
 Foxborough

In addition, poor track condition and a lack of sufficient funds for maintenance have forced termination of service to:

Arlington
Lexington
Bedford

Average daily weekday ridership (Monday - Friday) for the entire commuter rail system is presently about 30,000 trips per day. Ridership on both the Northside service and the Southside service is once again increasing (January - June, 1977) with total weekly Northside ridership up an average of 2.84%, and Monday - Friday weekday ridership up an average of 6.9% over the same period for 1976.

Southside ridership has been steadily increasing at an annual rate of 5% for more than 18 months. May 1977 figures were up 8.8% over May 1976 ridership for Southside service. These figures represent a most encouraging trend, given the fact that several communities served by CRR in 1976 had terminated service in 1977, and also by the fact that the capital improvement program work has just been started this July, 1977.

3. The Next Five Years

The MBTA is in the process of implementing a Commuter Rail Improvement Program (CRIP) to improve the 300-mile commuter rail network. The cost of this program could reach \$300 million over a ten-year period, depending on the level of improvements adopted on each line. The MBTA is currently assessing the relative priorities associated with investment on each line during the next five years, in view of the limited capital funds that will become available.

Improvements will include, but not be limited to, replacement and rebuilding of all rolling stock (coaches, self-propelled cars and locomotives), station improvements, signs and public information, track, signal and bridge replacement and upgrading and the establishment of several fringe park and ride facilities at major highway interfaces.

This initial program will provide the basis of further improvements and logical extensions of service. The CRR system is financially and operationally the best solution to an intercity rapid transit system for the Commonwealth. Access to downtown terminals in virtually every major urban area in the state is a distinct advantage. Ownership of many of these tracks by the MBTA is also a distinct advantage.

The most immediate prospects for the extension of service are:

Boston - Haverhill (via Lawrence)
Boston - Fitchburg

These are on Authority owned main line track requiring little or no capital investment to implement service.

Boston to West Peabody presents itself as a short-range park and ride opportunity. Boston to Worcester service will require trackage rights from Framingham to Worcester from ConRail in order to provide service, but this is a high-speed, well-maintained railroad. Other extensions require more significant work and are therefore longer range in scope.

C. The Mainline (System) Rehabilitation Program

The problems of the railroads in New England have been recognized by the states and by the New England Regional Commission which is the regional arm of the Department of Commerce. Through the efforts of NERCOM, funding first became available in 1976 to undertake major rehabilitation on the railroads within the region. This program is expected to continue for five years in the six states in Massachusetts, Rhode Island, New Hampshire, Vermont, Connecticut and Maine.

The 1976 program in Massachusetts was devoted exclusively to the Boston & Maine Railroad. That railroad required major rehabilitation along its Portland, Maine, to Mechanicville, New York, main lines--the principal route out of southern and central New England other than via ConRail.

The 1977 program was divided between the Providence & Worcester and the Boston & Maine railroads. The B&M received \$.532 million for track work and necessary bridge clearances.

The P&W received \$.28 million to undertake a major expansion and improvement of the Worcester Yard facilities. The yard is a key point in the routing of P&W traffic.

In addition to the B&M and the P&W, ConRail and the Central Vermont railroads will participate in the New England Regional Commission (NERCOM) rehabilitation program in the Commonwealth for the first time in 1978.

ConRail and the Central Vermont railroads will participate in the New England Regional Commission (NERCOM) rehabilitation program in the Commonwealth for the first time in 1978.

NERCOM has approved a two - state project on ConRail's Canaan Secondary Track between Lee, MA and Canaan, CT. The amount of \$52,300 will be spent in Connecticut and \$41,000 to be spent in Massachusetts for track rehabilitation. This section of line was listed by ConRail in May 1977 as being under study to determine its profitability, (Category II). If the line had been shown to be unprofitable to operate, it could have been subject to

abandonment action, (Category I). ConRail has subsequently deleted this line from Category II. However the affected States felt that improved operating standards on the line would reduce ConRail's operating costs and reduce the chances of it emerging in future years as a Category II line.

NERCOM has also approved a two-state project to increase clearances on the CV line from Massachusetts/Vermont border through to the coastline of Connecticut to permit the movement of high and wide loads. The railroad will receive \$80,000 for the work in Connecticut and \$69,000 for the work in Massachusetts.

Under the NERCOM agreement, the railroad will implement a rehabilitation and modernization project on its line which will include lowering the track under seven bridges and raising four overhead highway bridges to provide 19'-2" actual clearance. This will permit the passage of 18'-8" high cars such as automobile carriers and trailers on flat cars (TOFC). The track lowering will require the removal of 15,300 cubic yards of fill, installation of 6000 cubic yards of ballast and 10,200 feet of track resurfacing. The bridge raising will include redesigning and resurfacing the highway approaches, raising the present bridge bearing blocks and drainage work, as required.

The clearance project is part of a four state effort to improve the clearances between Montreal and southern Connecticut. In 1977, New Hampshire and Vermont funded a NERCOM program that increased clearances to the northern border of the Commonwealth. With this 1978 clearance project in the Commonwealth, and a similar one in Connecticut, the CV will have a minimum of 19'-2" clearance from the Canadian border to southern Connecticut.

Because the railroad anticipates an increase in new traffic following this rehabilitation program, the company is investing \$202,800 in its Connecticut track and \$220,508 in its Massachusetts track.

The 1978 NERCOM projects on the B & M differ substantially from the 1977 projects.

A bridge on the Hollis Branch in the Town of Pepperill will receive significant safety-related repairs at a cost of \$5,000.

At an estimated labor cost of \$450,000, the East Deerfield yard will be rebuilt with more than 25,000 ties, 90 switches, more than 2400 switch timbers, 3800 tons of stone ballast and with necessary spot resurfacing.

The Fitchburg yard will be rebuilt with the installation of 4500 ties, 27 rebuilt switches, 350 switch ties and timbers, 1150 tons of stone ballast and spot surfacing. Labor cost for this work is estimated to reach \$122,000.

The P & W will receive \$275,000 in 1978 to substantially complete the rehabilitation of the Worcester Yard. This work program will involve installing 7 new switches, rehabilitating 20 switches and relocating one switch while installing 10 new switch heaters to keep switches free of snow. The 1978 project emphasizes new tie and timber installation: 7,714 ties, 1,000 switch timbers, and 120 bridge timbers.

The P & W will use 5,000 tons of ballast and over 240 kegs of track spikes to install this material.

V. DESCRIPTION OF ASSISTANCE PROGRAM

A. Subsidized Operations

The planned service continuation program is summarized in Table I, Chapter VI. Six lines have been continued in operation since implementation of the Final System Plan, April 1, 1976. These lines are proposed for continued operation, rehabilitation and acquisition by the Commonwealth. A seventh line, from Needham Junction to West Roxbury, is expected to be operated this year.

The following line descriptions detail the particular reasons these lines merit state and federal subsidy assistance. In general, the effects of service discontinuance would be quite serious locally. Furthermore, the lines have significant industrial development potential and a reasonable prospect of achieving over a period of time viable self-sustaining operation without the need for permanent operating subsidy.

These lines total 88 miles and serve over 48 Massachusetts businesses (up six from 1976), handling almost 2400 annual car-loads (up from 2201 in 1976). The direct impact of loss of rail service would now be the loss of more than 746 jobs. Indirectly, approximately 1,119 additional jobs would be lost or a total in excess of 1,865 jobs.

Assuming a 10 percent inflation factor in the 1978-79 program year, based on estimates made by the Bureau of Labor Statistics, the 1978-79 operating year costs should amount to \$897,429. If acquisition of the Penn Central lines should be concluded prior to the end of this operating year, a portion of the lease costs on 46.7 miles of Penn Central right-of-way at approximately \$4300 per mile, totalling \$201,544 could be deducted from the subsidy cost and further reduce the operating deficit on the seven lines.

With the state funding 20 percent of the 1978-79 subsidy, its cost should amount to approximately \$157,051. However, the state has reported in-kind (non-cash) benefits in an amount of \$253,800 to the program which clearly covers the state share of this continued assistance program year.

Line No. 8, Palmer to South Barre

The Ware River Secondary Track extends from Palmer (Milepost 0.0) to South Barre, Massachusetts (Milepost 25.0), a distance of 25.0 miles, through Hampden, Hampshire and Worcester Counties, Massachusetts.

1. Community Description

Line #8 provides direct freight rail service to four communities in the Ware River Valley area including Palmer, Ware, Hardwick and Barre.

The table below indicates the 1960 and 1970 U.S. Census population figures for each of the aforementioned communities as well as the percentage change in population over this ten-year time span:

<u>Town</u>	<u>1960 Population</u>	<u>1970 Population</u>	<u>% Change</u>
Palmer	10,358	11,680	+ 11.4
Ware	7,517	8,187	+ 8.2
Hardwick	2,340	2,529	+ 7.5
Barre	3,479	3,825	+ 9.9

2. Physical Characteristics

a. Length 25.0 miles

b. Track single

c. Railroad Bridges	<u>Location</u>	<u>Condition</u>
	Springfield Rd., Palmer	Fair
	Gibbs, Ware	Very Good
	Ware River, Gilbertville	Poor
	Meadowbrook, Hardwick	Fair
	Hardwick Rd., Hardwick	Fair
	Ware River, Barre Plains	Poor

d.	Major Highway		
	Grade Crossings	Hardwick (local roads)	3
		New Braintree (local)	2
		Ware (Church St.)	1
		Ware (local roads)	2
		Ware (W. Warren & Anderson Rds.)	2
		Palmer (Bennett St.)	1
		Palmer (State St.)	1
		Palmer (Church St.)	1
		Palmer/Three Rivers (Main St.)	1
		Palmer (Rte. 181)	1

e. Track Conditions

This branchline requires considerable upgrading to meet the Federal Railroad Administration's minimum safety standards which have a 10 mph maximum operating speed. Estimates approved by the FRA for upgrading the track structure include the insertion of nearly 10,000 switch and cross ties, considerable bolt tightening, extensive joint bar installation and peripheral items throughout the 25-mile line length.

However, the 10 mph operating speed does not lend itself to efficiency and minimized operational costs on track of this length. Neither does it allow for increased traffic development which inherently requires additional operating time. Because of these considerations, EOTC requested the FRA to consider our proposal that the line be upgraded to Class II standards of 25 mph. It was our opinion that an increase of 130 to 150 carloads would begin moving to South Barre immediately on an annual basis.

Our proposal was accepted and we were granted \$1,444,557 to rehabilitate the full 25 miles of track to FRA Class II (25 mph) operating standards. It is expected that rehabilitation will include the insertion of approximately 22,400 wood cross ties, re-gaging to maintain proper rail width on an additional 26,000 ties, use of an additional 90,000 new and used rail anchors, insertion of 9,800 tons of crushed stone ballast, surfacing and aligning 61,500 feet of track, cleaning and restoring a total of 75,000 feet of drainage ditches, insertion of more than 13,000 tie plates, 3,300 feet of rail and 7,600 feet of switch ties

Additional rehabilitation work includes use of 15,000 track bolt assemblies, several hundred new and used joint bars, brush cutting, culvert cleaning and repair and crossing improvement.

The rehabilitation project is expected to be completed early to middle Fall at which time the capacity of the track to carry heavier volumes of freight will have been vastly enhanced.

Commodities carried on this line include paper, packaging materials, lumber, scrap metals, metals, foundry supplies, building supplies, farm supplies, feed grains and fertilizers.

3. Present Rail Freight Usage

The Commonwealth has contracted with ConRail to provide twice-a-week service between Palmer and Gilbertville, approximately 14 miles, and once-a-week service, when needed, between Gilbertville and South Barre which is at the end of the line at Milepost 25.0. However, the line segment from Gilbertville to South Barre has been embargoed since November, 1975. Service is expected to be restored by the Fall.

Active companies beyond the embargoed track at Milepost 14 would receive fabric wastes and coke in South Barre if the line were currently operating. As noted earlier, their shipments would be 130 to 150 carloads annually beginning immediately upon re-institution of service on the track. With the improved track, there is the possibility that Gilbertville Storage will expand its traffic base.

Currently Active Rail Users

Due to poor service and unreliable operating conditions of the track between Palmer and Gilbertville, the number of companies using rail service has been reduced to five. Those that have been forced to forego rail service are: Hardwick Farmers Cooperative, Ware Machine Works, Ware Lumber, Goldstein & Gurwitz and Ludlow Corporation.

The Hardwick Farmers Cooperative has recently consolidated its operations in Gilbertville and plans to begin receiving shipments following rehabilitation of the track. Ware Machine Works, Ware Lumber and Goldstein & Gurwitz have adopted truck transportation as an alternative mode. However, it is hoped the latter may be enticed to use rail service following rehabilitation. Ludlow Corporation, located on a siding interchanging with the B & M Wheelwright branch in Ware, has been discussing means of re-instituting rail service with the Massachusetts Central Railroad. A more complete description of this activity is found on page V.7, section 5, B & M and MCRR Coordination Project.

Thorndike	Diamond International Corporation Federal Paperboard Company
Ware	Ware Metals, Inc. (B & M)
Gilbertville	Gilbertville Storage Company Hersey Products Foundry

4. Impact of Rail Service Discontinuance

a. Economic Impact

The adverse economic impact of the discontinuance of rail service as identified by the present rail users in their responses to the "Massachusetts Rail Study--Freight Transportation Survey" conducted by the EOTC in the summer of 1975 remains unchanged as indicated in the table below:

Loss of Jobs if Rail Freight Service were Discontinued

<u>Present No. of Firms Using Rail Service</u>	<u>Present No. of Persons Employed by Rail Users</u>	<u>Job Loss Within One Year Due to Abandonment</u>
5	699	87

This projected job loss cannot be tolerated in an area which suffers an average unemployment rate of 6.5% (down from a high of 25% in 1975) according to the Massachusetts Division of Employment Security (April 1978).

The Diamond International Corporation, located in Palmer has expressed its concern that if rail service were discontinued to its Thorndike plant, it may be forced to relocate thereby threatening a loss of approximately 375 jobs. Due to the highly competitive nature of the wood-products industry, in the past year Diamond International has closed the doors on a number of its plants, among them are one in Springfield, Massachusetts, one in Middletown, Ohio, and one in Baltimore, Maryland. A plant in Ogdensburg, New York which is located on a subsidized line may be forced to close its doors due in part to an estimated \$115 to \$126.50 per-car surcharge the company may have to pay to assure itself rail service in that community.

At the present time the Palmer plant is one of the only three Diamond International plants in the country that make paper mache egg cartons. The other plants are located in Natchez, Mississippi and in Redbluff, California. The penetration of their market by competitive products (plastics) appears to have levelled-off, according to a company spokesman, so the long-term operation of the Palmer plant appears to be reasonable if dependable freight rail service can be assured.

The impact loss of rail service on area workers and on the area communities would, as a whole, be extremely severe furthering the continuing human and social hardship that has affected this area of the Commonwealth in recent years. Loss of rail service would also undoubtedly cut any significant growth in the number of new job opportunities in the Ware River Valley area by discouraging, if not eliminating, the possibility of attracting new industries. The prospects for industrial growth in this area are sufficient to have enabled the Commonwealth to have committed \$1.4 million of Federal and State funds to the rehabilitation of this line as is detailed in other sections of this chapter.

b. Industrial Growth

The attraction of new industrial firms and the potential for growth for existing firms is heavily dependent on the future of rail service in the Ware River Valley. Many existing industrial plants have already deferred expansion as a result of the uncertain future of rail service. Similarly, plants which have already been vacated have experienced serious difficulties in resale, again due to the uncertainties surrounding rail freight service. Utilizing the combination of the available physical plants in the Ware River Valley, coupled with the available work force, an excellent opportunity exists for economic revitalization in the area.

c. Highway Capacity

A major traffic problem will result if rail freight service is abandoned on the Ware River Secondary Track. The area currently served by this branch is hilly and the highways in the vicinity have many curves and steep grades that are difficult to negotiate, especially in bad weather.

Route 32, which parallels the rail line, is a two-lane highway ranging from 20 to 53 feet in width with intersections not designed for the turning increments of large tractor trailers. At most major intersections, this condition results in blocking adjacent lanes as trucks attempt to negotiate turns. Transfer of rail traffic to trucks would result in an increase of at least 400 trucks on local roads.

5. Marketing Plans and Business Interest

Since the release of the Phase II State Rail Plan in December 1975, we have received inquiries from the Ware River Valley area business community about our plans for this branchline. In each inquiry, the question has been based on a desire to expand use of rail services, for the purpose of evaluating sites for new plant construction, and to re-establish already-abandoned rail services.

Generating increased and long-term use of the branch line is the basis of our rehabilitation plans. Rehabilitation is expected to begin in June 1978 and we expect to attract business interests which have held a "wait and see" attitude about locating on the line.

B & M and MCRR Coordination Project

In the hearing at the Federal District Court in Boston in December 1976 on reorganization under Section 77 of the Federal Bankruptcy Act, that Court heard the Boston & Maine's plea to rid itself of the service encumbrance it is obligated to fulfill on the Wheelwright Branch Line. The branch line extends from Northampton through Hadley, Amherst, Belchertown, Bondsville, Ware and onto the end of the line known as Wheelwright.

Concurrent with this B&M action, the Massachusetts Central Railroad Company has petitioned the Interstate Commerce Commission to be allowed to operate the B&M line from Northampton to Amherst, and from Bondsville to Ware during the abandonment interim.

The EOTC has closely monitored the B&M's effort to reorganize and the MCRR's efforts to begin operations. As an interested third party and participant as the contractor with ConRail, which would operate as a connecting carrier with the MCRR under an interchange agreement at the Ware Yards, the EOTC has been active in its role to obtain necessary permission for trackage rights from the Penn Central Estate and to provide its assistance in negotiations between the MCRR and B&M, and the MCRR and ConRail.

If this coordination project proves successful, carloads formerly moved from the Diamond International plant in Bondsville by the B&M will be moved by the MCRR for interchange at Ware with ConRail resulting in new traffic and revenues for the Ware River Secondary Track.

In addition, the Ludlow Paper Company, a former rail user, will also begin using service again for shipments originating and terminating at the company and entering and leaving the ConRail system through the Ware River Secondary. These movements will also add new revenues and should increase traffic on the line by nearly 200 cars annually.

The MCRR has indicated that it would work toward bringing former rail-using businesses in its operating area back to rail and actively solicit the development of new business. We will continue to monitor the issue until a resolution of the project has been made. In our opinion, our action demonstrates our support for the business community in the Commonwealth and provides the opportunity through which the MCRR can demonstrate its capability as a railroad.

6. Line Disposition

Given the merits of coordinating B & M traffic through the MCRR with that presently carried by ConRail, the growth of traffic in the South Barre area, the locations available for new business development and the \$1,444,557 being invested in track rehabilitation, we feel this line merits long-term service continuation that will support the growing confidence we see the business community developing in government ownership of rail rights-of-way.

The estimated ConRail subsidy for 1978 is \$179,183 of which an estimated \$97,643 is attributable to the Penn Central lease demand. Acquisition of the property by the Commonwealth will substantially eliminate this cost. The rehabilitation is also critical in further reducing operating costs in that it allows more efficient train operations with present traffic and in operations better able to accommodate prospective traffic growth.

The line is proposed for acquisition by the Commonwealth based on a negotiated estimate of the salvage value of the line.

Line No. 13, South Sudbury to Chelmsford

The Lowell Secondary Track extends from South Sudbury (Milepost 4.7) to Chelmsford (Milepost 24.5), a distance of 19.8 miles in Middlesex County, Massachusetts.

1. Community Description

The communities through which the Lowell Secondary Track passes are: South Sudbury, Sudbury, North Sudbury, West Concord, Acton, North Acton, Carlisle, South Chelmsford and Chelmsford. Rail users are located in Acton and Chelmsford.

Population densities in the communities utilizing rail service through their industries are listed below. As of the April 1978 report from the Massachusetts Division of Employment Security's Massachusetts Trends, the communities suffer from an unemployment rate in excess of 5.8 percent.

<u>Town</u>	<u>Population</u>
Concord	16,148
Acton	14,770
Chelmsford	31,432
Total	62,350

2. Physical Characteristics

- a. Length 19.8 miles
- b. Track single
- c. Railroad Bridges A total of 15 bridges ranging from poor condition to new.
- d. Major
 - Highway Route 2
 - Grade Routes 2A and 119
 - Crossings Route 25
 - Route 27
 - Route 110

There is a total of 26 highway crossings along the line.

e. Track Conditions

This line requires upgrading to continue to meet the requirements of the Federal Railroad Administration's minimum safety standards of a Class I operating speed of 10 mph. FRA-approved estimates for upgrading of the line include nearly 8,400 cross switch ties, brush cutting, grade crossing improvements and the installation of numerous joint bars and other track structure items.

However, the 10 mph operating speed does not lend itself to efficiency and minimized operational costs on track of this length. Neither does it allow for increased traffic, due to industrial development, which inherently requires additional operating time. Because of these considerations, EOTC proposed funding for FRA Class II (25 mph) rehabilitation. FRA accepted our proposal, but insufficient funding in the Massachusetts share of the national rail program under the Railroad Revitalization and Regulatory Reform Act limits us to a rehabilitation of this line to an FRA Class I rehabilitation. The cost of Class II rehabilitation is estimated to be approximately one million dollars.

Engineering evaluations to bring the line to FRA Class I standards have expanded the original FRA specifications and now include the following quantities of track material: the insertion of 12,700 wood cross ties, re-gaging on an additional 12,500 ties, 600 new and re-used tieplates, 825 feet of rail, the addition of 25,000 new and re-used rail anchors with the adjustment of 25,000 existent rail anchors, insertion of several hundred joint bars and 6,300 track bolt assemblies, the application of 4,200 tons of crushed stone ballast, and surfacing and aligning 103,500 feet of track.

Additional work estimates include cleaning and restoring a total of 31,700 feet of drainage ditches, brush cutting, culvert cleaning, insulated joint repair and the rebuilding of grade crossings.

Class II rehabilitation would require the following estimated quantities of materials: 19,000 wood crossties, re-gaging on an additional 25,000 wood cross ties, 600 new and re-used tieplates, 825 feet of rail, the addition of 50,000 new and re-used rail anchors with the adjustment of 12,500 existent rail anchors, insertion of several hundred joint bars and 6,300 track bolt assemblies, application of 7,900 tons of crushed stone ballast, and surfacing and aligning 103,500 feet of track.

Additional work under Class II standards would include pulling up 33,000 feet of ballast shoulders, cleaning and restoring nearly 32,000 feet of drainage ditches, brush cutting, culvert cleaning, repair of insulated joints and the rebuilding of grade crossings.

3. Present Rail Freight Usage

Under our contract with ConRail, this line is served two days per week--Tuesdays and Thursdays--by Train L131 originating from Framingham and employing a four-man crew. In 1977, 321 carloads were moved over the line (up from 250 in 1976). Commodities include lumber, feed grains, building supplies, fertilizer and furniture.

Currently Active Rail Users

Acton	Acorn Structures, Inc.
	Deck House, Inc.
	Wickes Lumber
	Sutton Construction Co.

Acton Allstate Pools

Chelmsford Agway, Inc.
 Harvey Building Supplies, Inc.
 State Line Lumber
 Gunit Aquatech

4. Impact of Rail Service Discontinuance

a. Economic Impact

If service were to be discontinued to the present users on this line, several related negative impacts would result. Those industries that can move their shipments by truck transport have indicated that they would have to pass on the higher costs to their customers. While this factor does not immediately threaten the existence of these industries, over the long term, due to competitive factors, these additional transportation costs would depress the growth of these companies and related job opportunities.

b. Industrial Growth

The line continues to offer excellent potential for growth of present industry and for the location of new industry. There are more than 50 acres of industrially zoned land contiguous to the rail line which are not adequately serviced by highways.

c. Highway Capacity

The Lowell through Concord area provides a network of highways and secondary roads with surface conditions ranging from fair to good. Route 27 winds back and forth across the line and carries an average daily traffic of 2,800 to 6,350 vehicles.

5. Marketing Plans and Business Interest

a. Generating Traffic

The businesses along this branch line have voluntarily agreed to work for the benefit of all by maximizing their use of rail services and by using themselves as an example for other industries interested in locating on subsidized lines.

Wickes Lumber in Acton continues to provide temporary unloading facilities for Acorn Structures, Inc., a component home builder, and recently for Sutton Construction Co. and Allstate Pools.

Acorn had to delay plans for building a siding in 1973 due to the Penn Central bankruptcy and is reviewing the prospects of going forward with those original plans.

Wickes Lumber continues to divert as much traffic as possible to the line which ordinarily can be placed at locations receiving regular service in the ConRail and B & M systems. The company also continues to receive shipments for other consignees in the area.

b. Minimizing Operational Costs

Consignees on this line periodically report to EOTC what are felt to be inefficient train crew practices which may be indicative of ineffective ConRail supervisory management controls. While operating conditions may be a cause of alleged inefficiencies until rehabilitation is completed, EOTC feels that supervisory management should be cognizant of the practices of its crews.

The EOTC has continued discussions with the B & M concerning operations out of Lowell rather than South Sudbury which requires ConRail to travel approximately nine miles before reaching the first customer in Acton. Service from Lowell would mean travel of less than two miles to reach the first customer in Chelmsford and result in a service distance to Acton of approximately ten miles. Operating savings would be significant.

6. Line Disposition

This line, from South Sudbury to Chelmsford, merits continuation of freight service. This conclusion is based on considerations of economic impact of service discontinuance, our plans for rehabilitation of the line, industrial development and factors indicating that the rail traffic is not entirely compatible with movement by truck. The industry located on this 20.5-mile section produced 190 carloads of traffic in 1974. This traffic figure has already risen to 321 carloads and is expected to continue to rise when housing starts rise across the nation.

The estimated annual ConRail subsidy cost is \$211,015 of which \$88,879 is the Penn Central lease demand. The line is proposed for acquisition by the Commonwealth to eliminate much of the lease fee and to facilitate rehabilitation under Massachusetts legislation. The estimated acquisition price is based on negotiated appraisal values developed by Penn Central and EOTC.

Line No. 17, North Abington to West Hanover

The West Hanover Secondary Track extends from a junction with the Plymouth Secondary Track at North Abington (Milepost 0.0) to West Hanover (Milepost 3.6) in Plymouth County, Massachusetts. The branch line serves industries in the towns of Rockland and West Hanover.

1. Community Description

The table below lists the latest population figures available and indicates the area's growth trend between 1960 and 1970:

<u>Town</u>	<u>1960 Population</u>	<u>1970 Population</u>
Rockland	13,119	15,694
West Hanover	5,923	10,107

2. Physical Characteristics

a. Length 3.6 miles

b. Track single

c. Railroad	<u>Location</u>	<u>Condition</u>
Bridges		
	MP 0.55 Culvert	Fair
	MP 1.06 Culvert	Fair
	MP 3.68 River	Fair

d. Major Highway Route 129
Grade Route 123
Crossings Route 139

There is a total of eight grade crossings along the line ranging from good to excellent conditions.

e. Track Conditions

This line required upgrading to meet the requirements of the Federal Railroad Administration's minimum operating standards of 10 mph Class I track. FRA-approved estimates for upgrading to Class I operations included more than 1,500 cross and switch ties, spot surfacing, grade crossing improvements and extensive joint bar and peripheral track components installation.

Major FRA Class I rehabilitation was completed in November 1977. The quantities of materials installed during the project amounted to 2096 tie and switch timbers, 2630 feet of ditch cleaning, brushcutting the entire length of line, the installation of 50 joint bars and 1150 bolt assemblies, joint tightening throughout the line and the spreading of 100 tons of crushed stone ballast.

A special track-raising project identified in the original FRA track inspection which led to the rehabilitation of the line should be completed in early to mid-summer. This project, valued at \$34,000, will raise approximately 4,000 feet of track from an unstable mud base in the Circuit Street area. A separate grade crossing project to improve traffic safety is also to take place in the area during the summer. Upon completion, operations on the line should provide a dramatically improved quality of service to users on the line.

3. Present Rail Freight Usage

This line is served Tuesdays and Thursdays by train BX14, a local freight originating in South Braintree and employing a crew of four men. In 1977, 534 carloads were moved over this line (up from 492 in 1976). An additional consignee, Halliday Lithograph, located at the end of the line received its first shipment of printing papers on the line in December 1977. The principal commodities moved over the line are: lumber, food stuffs, chemicals and printing paper.

Currently Active Rail Users

West Hanover	Angelo's Supermarkets, Inc.
	Home Gas, Inc.
	United Cabinet
	Trojan Sales
	Wes-Pine Millwork, Inc.
	Halliday Lithograph, Inc.
	North River Feed Co.

4. Impact of Rail Service Discontinuance

a. Economic Impact

The economic impact of the discontinuance of rail service as identified in the July 1975 Massachusetts Rail Study Freight Transportation Survey is shown below:

Loss of Jobs if Rail Freight Service on Line #17 is Discontinued

<u>Present No. of Firms using Rail Service</u>	<u>Present No. of Persons Employed by Rail Users</u>	<u>Job Loss Within One Year Due to Abandonment</u>
7	160	148

As can be seen by the figures, this threatened job loss is serious in light of the existing unemployment in this area and the effect discontinuance would have on the development of new replacement jobs. The Massachusetts Division of Employment Security reports that unemployment in the area as of April, 1978 was 5.8%.

b. Industrial Growth

Rockland and West Hanover have active industrial development commissions which are working toward bringing light, rail-using industry to the area. Rail-using industry is preferred to prevent increased truck traffic from being added to the crowded highways in this part of Massachusetts.

The Town of Rockland is a fully sewered community and now has a major parcel of land available for industrial development. The South Shore Chamber of Commerce is working with a number of real estate developers and companies in an attempt to expand the use of freight rail services by current businesses and in new business development.

c. Highway and Bridge Capacity

Route 139 is the main traffic artery through these communities. It is a two-lane highway, 30 feet wide, with no shoulder between Abington and Rockland and a two-foot shoulder in Hanover. Average daily traffic ranges from 6,800 to 15,800 vehicles per mile. The highway passes through residential, business and wooded areas with speed limits of 35 mph and 45 mph. Additional truck traffic in small volume could be added to the highway, according to the Massachusetts Department of Public Works, but additional volume would aggravate the current heavy traffic conditions.

5. Marketing Plans and Business Interest

The businesses in this area of the Commonwealth are aggressive and particularly community oriented. During our field meetings, references are constantly made to the integral part the business sector plays in the welfare of the community. From this standpoint, then, the rail users work together for the benefit of all by maximizing their use of the line and to establish themselves as examples of what the business community can do to meet the challenge of preserving important rail services.

Examples of local faith in the continuation of service under our rail plan include: Angelo's Supermarkets, the largest single user of rail services on the line, expanded its warehouse facilities to accommodate its growing chain of food stores in southeastern Massachusetts; Halliday Lithograph is now receiving its printing papers in West Hanover. Previously the company received in Plymouth and trucked to West Hanover. Occasional consignments are now being made to the public siding in West Hanover. The remaining users look to traffic growth based on their respective annual growth projections.

Shared Switch Maintenance

Since this line crosses private property, owned by Wes-Pine Millwork, Inc., on which there are three switches, switch maintenance has been a cooperative effort between Wes-Pine and users beyond its site to the end of the line for more than a dozen years. In

May of 1977, \$15,000 was spent on rehabilitation. The Executive Office of Transportation & Construction feels this is an excellent example of rail-using businesses cooperating to assure themselves, as much as possible, continued service on their branch line.

6. Line Disposition

With prospects for increased traffic now bearing fruit, and in view of the more than \$120,000 of rehabilitation that the Commonwealth has committed to this branchline, this line merits long-term continuation of freight service. The estimated annual ConRail subsidy for 1978 is \$127,034 of which \$15,022 is Penn Central's lease demand. While the traffic base has increased each year, contrary to expectations, the subsidy has also increased. This has been due to inflationary pressure and a large number of commodity movements which do not cover their transportation costs. We have begun discussions, however, with consignees in order to find ways of eliminating these losses.

The line is proposed for acquisition by the Commonwealth to eliminate much of the cost of the lease.

The acquisition cost of this line is being negotiated on a basis of comparative appraisals conducted by the Commonwealth and the Penn Central estate.

Line No. 21, East Sandwich to Hyannis

The Hyannis Secondary Track extends from East Sandwich (Milepost 7.5) to Hyannis (Milepost 24.3) in Barnstable County, Massachusetts.

1. Community Description

This rail line provides service to the towns of Bourne, Sandwich and Barnstable. The table below lists the 1975 year-round population and estimated summer population which includes tourists.

<u>Town</u>	<u>1975 Year-Round Population</u>	<u>1975 Summer Population</u>
Bourne	14,971	35,862
Sandwich	7,392	20,132
Barnstable	<u>26,380</u>	<u>59,988</u>
Total	48,743	115,982
Barnstable County	124,564	428,986

2. Physical Characteristics

- a. Length 16.8 miles
- b. Track single
- c. Railroad Location Condition
 Bridges
 Mill Creek (Sandwich) Fair
 Rte. 6 Under (Yarmouth) Good
- d. Major Route 6A in East Sandwich
 Highway
 Grade Hyannis Road in Barnstable
 Crossings Route 28 in Hyannis
- e. Track Conditions

Contrary to the USRA recommendations cited in our Phase II Rail Plan, this line requires upgrading to meet the requirements of the Federal Railroad Administration's minimum safety standards of Class I track. However, in view of the more than 1,000 carloads of traffic moving over this line at the present time and the efficiencies of operating lines 21, 22, and 23 as a unit, rehabilitation is planned to bring the Hyannis and Falmouth tracks to FRA Class III track classification.

Rehabilitation of the Hyannis, South Dennis and Falmouth Secondary tracks is to be conducted as a combined project. The following are estimates of the quantities of materials that will be put into rebuilding the track structure to an FRA Class III standard on the Hyannis and Falmouth tracks and to an FRA Class II standard on the South Dennis track.

Approximately 37,800 wood cross ties will be inserted with 1300 new and re-used tie plates; 3,485 feet of rail; gaging of track over 31,100 cross ties; the installation of 22,000 new and used rail anchors; more than 940 joint bars and 10,920 bolt assemblies.

In addition, more than 23,600 tons of crushed stone ballast will be spread; 29,600 feet of ballasted shoulders will be rebuilt; 157,880 feet of rail will be surfaced and aligned in conjunction with the spot surfacing and aligning of an additional 10,600 feet; 27,000 feet of ditching will be cleaned; additional brush cutting will be done outside that done during the past two years under the CETA brushcutting program; and approximately 175 feet of grade crossing will be rebuilt.

3. Present Rail Freight Usage

Service is provided Mondays and Wednesdays on Line #21 with local freight L-211 originating in Middleboro and carrying a crew of four. Major commodities carried are lumber, propane gas, sand, packaging materials, plastics, furniture and building supplies.

Currently Active Rail Users

West Barnstable	Barnstable County Supply
Hyannis	Cape Maid Farms
	New Bedford Gas and Edison Light
	John Hinckley & Son Company
	Myers Furniture
	Suburban Gas Company
	Packaging Industries
	East Coast Paper and Packaging
	Surprise Furniture

4. Impact of Rail Service Discontinuance

a. Economic Impact

As stressed in our 1976 Rail Plan, the economic impact caused by the discontinuance of rail freight service would result in job losses of approximately 150 persons during the first year and to more than 450 persons over a five-year period.

This job loss cannot be allowed to take place considering the persistent unemployment problem on Cape Cod. According to Massachusetts Trends (Division of Employment Security, April 1978), the unemployment rate in Barnstable County is 9.1 percent. On November 13, 1975, Barnstable County was designated a Title IV redevelopment area under the Public Works and Economic Development Act of 1975 as amended. Areas with annual unemployment rates of 10 percent or higher qualify for EDA development grants. This year the Cape unemployment rate may exceed 11.3 percent. This designation by the US Department of Commerce, Economic Development Administration, allows towns on Cape Cod to apply for EDA grants to encourage local economic development.

b. Industrial Growth

A 700-acre industrial park in Hyannis called Independence Park is ready for occupancy; roads and utilities have already been installed throughout the area.

Success of this park in which Packaging Industries is located is dependent to a large degree on the maintenance of rail freight service. Continuation of rail freight service is vital in order to attract new industry and diversify the economic base of Cape Cod and thereby reduce unemployment caused by a tourist-based economy.

It has been proposed that a siding into this park be constructed from the adjacent rail line. This siding would serve as an alternative facility for some (but not all) of the businesses presently served at Hyannis. This would eliminate numerous repeated switching moves across busy Route 28 in downtown Hyannis with resultant reductions in the time involved serving the local customers. (A significant benefit would also be realized by the local community which currently must put up with severe traffic congestion due to the rail switching operation.)

Also, the amount of loading space at Hyannis is severely restricted because of the fact that United States Railway Association decided to keep much of the yard area in the hands of the Penn Central Trustees. This is a constraint on existing traffic and will grow considerably more severe as new traffic is generated. The proposed siding at the industrial park would eliminate this constraint.

In total the Cape offers more than 1,300 acres of land for industrial use.

c. Rail Passenger Potential

The tourist industry on Cape Cod provides major passenger potential on Line #21. Total summer population on Cape Cod is about 430,000 of which nearly 130,000 are visitors from New York, New Jersey and the other New England states. Please see actions already taken in preparation for implementation of passenger services as explained in the section entitled Marketing Plans and Special Projects Related to Cape Cod Branch Lines, Page V.26

d. Highway Capacity

Route 6 is the major highway artery used by truck and auto traffic. This modern ~~four~~-lane highway carries a range of 3,200 to nearly 22,000 vehicles a day during the year. Given the environmental, energy, and safety impacts associated with traffic volumes of this magnitude, it would decidedly not serve the public good to discontinue rail services and burden the environment to a greater degree.

5. Marketing Plans and Business Interest

6. Line Disposition

See actions taken concerning plans and disposition of this line in the section entitled Marketing Plans and Special Projects Related to Cape Cod Branch Lines, Page V.26.

Line No. 22, Yarmouth to South Dennis

The South Dennis Secondary Track extends from Yarmouth (Milepost 0.0) to South Dennis (Milepost 5.6) in Barnstable County, Massachusetts.

1. Community Description

Line #22 provides service to Yarmouth and Dennis. The table below lists the 1975 year-round population and an estimated summer population which includes visiting tourists.

<u>Town</u>	<u>1975 Year-Round Population</u>	<u>1975 Summer Population</u>
Yarmouth	16,285	48,050
Dennis	<u>8,907</u>	<u>51,499</u>
Total	25,192	99,549
Barnstable County	124,564	428,986

2. Physical Characteristics

- a. Length 5.6 miles
- b. Track single
- c. Railroad
Bridges Bass River Good Condition
- d. Major Willow Street
Highway
Grade Union Street
Crossings
Great Western Road

Total number of grade crossings is seven.

e. Track Conditions

As with Line #21, this line requires upgrading to meet the requirements of the Federal Railroad Administration's minimum safety standards of Class I track. To reach that standard, FRA estimates specify cross and switch tie replacement, bolt and joint bar work, road crossing improvement and ditch cleaning. The FRA has accepted the EOTC proposal for Class II rehabilitation which projects a payback of the marginal extra costs within the FRA guidelines. Please see complete explanation in the commentary on rehabilitation, Chapter V, section E.

3. Present Rail Freight Usage

This line is served Mondays and Wednesdays as a contiguous portion of Line #21 by train L-211 which originates in Middleboro with a crew of four. The estimated ConRail subsidy covering the operating costs of these two lines is \$244,940 of which \$93,472 is attributable to a lease value equivalent to that of Penn Central-owned branchlines.

Currently Active Rail Users

South Dennis	Mid-Cape Center & Nickerson Lumber
	Mid-Cape Grain
	Holiday Gift Shop
South Yarmouth	Whitehead Brothers
	Cape Cod Gas Company

4. Impact of Rail Service Discontinuance

a. Economic Impact

The economic impact of the discontinuance of rail freight service as identified in our 1976 Rail Plan continues unchanged. Job loss within one year could exceed 145 and within five years exceed 240.

As described in the impact on Line #21, unemployment has been so persistent in this part of the Commonwealth that the area has been designated as a Title IV redevelopment area.

b. Industrial Growth

Yarmouth and Dennis at the present time have major industrial park areas adjacent to the branch line. These towns are attempting to attract new light industry in their efforts to expand their economic bases. Discontinuance of freight rail services would severely hamper their efforts.

c. Highway Capacity

Cape Cod is physically isolated, served by only two highway bridges and a rail bridge. The highway connections are severely congested during peak summer months. The discontinuance of rail service on Lines #21, 22 and 23 would result in approximately 16,700 truck loads on the highways and bridges. Though this additional traffic would not be a major burden nor materially add to existing congestion, it is not desirable. Nor is it wise to further isolate the Cape Cod area by rail discontinuance. This area of Massachusetts is also isolated from the food product, soft goods, home and hospitality product and construction materials distribution sources. The results are that transportation costs become a major factor in determining the consumer price of almost every product used on Cape Cod. Combined with the impact of the persistent high unemployment rate, any inflation in the consumer price index works negatively against the economy of the area.

5. Line Disposition

This line merits long-term continuation of freight service. Factors influencing this conclusion include the physical isolation of the Cape, the impact on the unemployment level, industrial potential, growth potential of present freight rail use and the extensive capital investment represented by rehabilitation of the Cape Cod lines.

Line #22 is proposed for rehabilitation to FRA Class II, because Class II upgrading will result in lower operating costs and improve reliability of the track structure and safety.

The line is proposed for acquisition by the Commonwealth. Please see actions to be taken concerning acquisition in the section entitled Marketing Plans and Special Projects Related to Cape Cod Branch Lines, Page V.26.

Line No. 23, Buzzards Bay to Falmouth

The Falmouth Secondary Track extends from Buzzards Bay (Milepost 0.1) to Falmouth (Milepost 13.8) in Barnstable County, Massachusetts.

1. Community Description

Line #23 provides service to Bourne and Falmouth. The table below lists the 1975 year-round population and estimated summer population which includes visiting tourists.

<u>Town</u>	<u>1975 Year-Round Population</u>	<u>1975 Summer Population</u>
Bourne	14,971	35,862
Falmouth	<u>19,846</u>	<u>56,532</u>
Total	34,817	92,324
Barnstable County	124,564	428,986

2. Physical Characteristics

- a. Length 13.7 miles
- b. Track single
- c. Railroad

Bridges	Back River (Fair)	Cattle Crossing Under (Good)
	Emmons Road (Good)	Shore Road (Good)
	Ram Island Road (Good)	Scraggy Neck Road (Good)
	Barlow River (Fair)	West Main Street (Good)
- d. Major Highway

Grade	Monument Neck Road
Crossings	Hanson Road
	Scraggy Neck Road
	County Road
- e. Track Conditions

This line requires upgrading to meet the requirements of the Federal Railroad Administration's minimum safety standards of 10 mph operation. FRA approved estimates for upgrading to Class I operation include the insertion of more than 1,700 ties, the rebuilding of grade crossings, ballasting and the replacement and tightening of numerous joint bars, bolts, and nuts. However, since our goal is to have the lines operating on a self-sustaining basis, a Class III proposal was made to and accepted by the FRA in view of the dramatic improvement to be found in the safety and efficiency of operation.

3. Present Rail Freight Usage

This line is serviced by Train L-231, a local freight out of Middleboro. It carries a four-man crew and presently services the line on Fridays.

Currently Active Rail Users

North Falmouth	Otis Air Force Base Veteran's Administration National Cemetery for New England
Falmouth	Falmouth Lumber Company The Grain Mill Wood Lumber Company

The U.S. Department of Defense is totally committed to continued use of coal in the Base Central Heating Plant at Otis Air Force Base. The installation of \$1 million of required environmental controls was completed October 1977 and a design for a heat distribution system will be completed this year. Also, in this connection, work has been completed which extended the Air Force-owned rail system on the base to improve coal handling procedures as well as to improve methods of handling other materials. The latter work involved an additional investment of nearly \$250,000. The base receives an average of 10,000 tons of coal by rail each year.

4. Impact of Rail Service Discontinuance

a. Economic Impact

The economic impact of the discontinuance of rail freight service as identified in our 1976 Rail Plan remains unchanged. Jobs lost within one year would be approximately nine; however, the loss would have to be projected to more than 400 during a five-year period based on estimates of new permanent jobs becoming available with new Federal projects being built and manned (see section b below) and with a new handicrafts shop complex being considered on the grounds of Otis Air Force Base.

b. Industrial Growth

Two major facilities are now in operation on the Otis Air Force Base complex: (1) a Veteran's Administration National Cemetery for New England; and (2) Coast Guard headquarters for enforcement of the 200-mile fishing limit. The anti-ballistic submarine launching radar system did not require rail service as had been described in our earlier plan.

Construction of the Vetran's Administration National Cemetery was delayed due to the 1978 Blizzard. The project is estimated to cost \$1.8 million, and encompass a 785-acre site as a five year development project. It is estimated that 100 year-round employees will be needed at a total annual payroll of about \$1 million.

The Coast Guard, in implementing its mission to enforce the 200-mile fishing limit, remains a prospective user of rail freight services. The number of fixed-wing and helicopter aircraft and personnel is expected to double as their role is made fully operational. The increase in air flights demands additional aviation fuel which may be brought in by rail tank car. Employment at the facility is projected to increase from 230 persons to more than 450.

c. Rail Passenger Potential

The tourist industry on Cape Cod provides a major passenger potential on Line #23 as the total summer population on Cape Cod is 430,000. The line also offers the long-term potential of serving Woods Hole from which steamship service is available year-round to Martha's Vineyard and Nantucket Island.

d. Highway Capacity

The problems of traffic congestion and the potential of exceeding highway capacity over the Sagamore and Bourne Bridges as described in Line 22 also applies to the Falmouth Secondary Track.

5. Line Disposition

The line merits long-term continuation of freight service. Factors influencing this conclusion include the growing rail traffic to Otis and the likelihood of future growth, the physical isolation of Cape Cod, the employment impact, our investment in track rehabilitation and our goal for rail passenger service to Falmouth and Cape Cod in general.

The estimated annual ConRail subsidy cost is \$84,318, of which \$12,101 represents the equivalent Penn Central lease value.

MARKETING PLANS AND SPECIAL PROJECTS RELATED TO THE CAPE COD BRANCH LINES

Cape Cod represents a unique phenomenon in the Commonwealth within the perspective of an area of continued population growth faced with large swings in unemployment levels. While increases in population should result in the growth of the business sector to provide goods and services, job opportunities have not kept pace with the pace of population increases. To compound the employment problem further, the tourist season brings great demand for short-term employment--jobs often filled by young people from areas other than the Cape.

This summer, Cape Cod faces an unemployment level of more than 9 percent. With the acquisition of the Cape rail lines by the Massachusetts Bay Transportation Authority, the Executive Office of Transportation and Construction in cooperation with the Cape Cod Planning and Economic Development Commission put ten formerly unemployed men to work clearing brush from the rights-of-way and from grade crossings. This CETA program continued with a new ten-man crew until December 1977.

1. CETA (Comprehensive Employment Training Act) Grant

The men worked under an annual CETA grant and were selected from men applying to the local Division of Employment Security Job Bank. The work was supervised by a ConRail track foreman employed under the maintenance of way section of our subsidy contract with Con-Rail.

The benefits from this program have been significant in terms of improved highway crossing safety, reduced brush damage to shipments carried in open flatbed rail cars and employment for ten men who otherwise would have remained unemployed during the past year.

Over the longer term, the clearance project made way for the rehabilitation plans for upgrading the track to 40 mph freight operation and eventual passenger service from New York and from Boston.

2. Acquisition of the Cape Branch Lines

At the present time, the Massachusetts Bay Transportation Authority holds title to the three former Penn Central rail lines, purchased under Section 206(c)(1)(D) of the Regional Rail Reorganization Act for \$307,655. Since these rights-of-way are far outside the MBTA District and are appropriately part of a state program, the EOTC plans to acquire these lines from the MBTA at the time EOTC acquires the other rail rights of way in the Commonwealth.

Line No. 33, Forest Hills to Needham Junction

This portion of the Needham Branch extends from Forest Hills (Milepost 3.3) to Needham Junction (Milepost 10.1) in Suffolk and Norfolk Counties, Massachusetts.

1. Community Description

This line is located in the south and southwest portions of the City of Boston and in Needham.

2. Physical Characteristics

- | | |
|---------------------|--|
| a. Length | 6.8 miles |
| b. Track | single |
| c. Railroad Bridges | 12 over and under major roads and the Charles River. |
| d. Grade Crossings | Not available. |
| e. Track Conditions | |

This line is part of the commuter rail system in the Greater Boston Metropolitan area and, therefore, requires no upgrading to meet FRA Class I standards.

3. Present Rail Freight Usage

At the present time this line receives no rail freight service.

4. Impact of Rail Service Discontinuance

a. Economic Impact

This line served one rail-using industry which also makes heavy use of trucking. Because trucking appeared to be a reasonably adequate alternative, the line was designated in the State Rail Plan prior to the April 1, 1976, ConRail start-up for operation only if the industry contributed to the subsidy. At the time, the industry did not do so. However, the industry now feels that rail service is essential if it is to keep this facility active and to develop it. Thus, the industry is now willing to contribute to the subsidy. The facility employs 200 people. Preservation of these jobs in the Boston area is in conformance with the state policy seeking to improve the economic health of the industrialized areas of Massachusetts.

b. Rail Passenger Potential

This line is owned by the MBTA and is currently used for rail passenger commuter service operated by the Boston & Maine under contract to the Massachusetts Bay Transportation Authority. The continuation of this passenger service would not be affected by the re-institution of freight service.

5. Line Disposition

This line has been designated for resumption of rail freight service under an agreement with the former user of freight rail service, United Liquors, Ltd., wherein the company will pay \$5,000 annually toward the cost of deficit service which is estimated to be approximately \$38,798 per year for once-a-week service. Service will be provided by ConRail from Needham Junction (Milepost 10.1) to United Liquors' facility located approximately at Milepost 7.2. It is planned to resume service as soon as the necessary agreements between the rail user, the state and the operator can be completed.

The company estimates that it will receive 100 carloads per year of alcoholic beverages initially. Strong potential exists for growth of this traffic with resulting possible elimination of the need for rail freight operating subsidy in future years.

EOTC's recent inspection of the company's side track showed the track structure and switch to be sound and apparently capable of handling the company's projected traffic with routine maintenance. The company is modifying its receiving facilities to accept 50' cars.

B. Acquisition/Rail Banking Program

Generally, this Office believes that railroad rights-of-way deserve preservation and protection from indiscriminate dismemberment by sale of sections of rights-of-way or construction thereon. Once dismembered, they can be extremely difficult to reassemble for uses requiring such linear rights-of-way--transportation, transmission lines or recreation. Furthermore, on lines for which operation will be continued, acquisition will result in savings of the annual return on investment fee which must be paid to the present rail line owners.

Included in this rail bank program are five line segments which had been proposed in the December 1975 edition of the State Rail Plan for continued operation if the rail users would commit to funding a portion of the operating deficit. No rail users were willing to make such commitments, thus freight service on these lines was not continued. Rather, these lines will be acquired to preserve them for future possible use.

The lines designated for highest priority acquisitions are those on which service has not been continued. These are accorded priority¹ A1 through A5 (highest to lowest) in ascending order of their estimated price per mile. Prompt purchase of these lines will prevent their actual physical abandonment and the removal of ties, rail and other essential feature. The total expected acquisition cost is approximately \$955,115 (in 1976 dollars, based on USRA estimated net salvage value).

The second priority¹ for acquisition is the lines on which service is being continued, designated Group B and listed in descending order of priority by estimated cost per mile. The total estimated cost for acquiring these lines is \$2,146,162. (See Chapter VI, Table II.)

Other than the cost of the Cape Cod lines purchased for EOTC by the Massachusetts Bay Transportation Authority and for which the MBTA will be reimbursed by EOTC, estimates listed in Table II for acquisition are not based on actual real estate appraisals. This Office will enter into negotiations with the present owners for acquisition at the net salvage value level. There is some reason to believe that actual appraisals will show the estimates used herein (which are derived from USRA figures) to be high.

This Office is currently processing a review of Penn Central properties which have been made available for sale by the estate of the former railroad. Properties which have a potential for transportation, recreation or conservation will be acquired.

The Boston & Maine Corporation and the Providence and Worcester have also been supplying this Office with applicable information about parcels of their properties which are available for purchase.

Our acquisition of railroad, and former railroad, properties is further detailed in Page V.35, wherein Massachusetts General Laws 161C section 7 and Chapter 40 section 54A are outlined as they relate to preservation of these properties in the public interest.

¹The priority contained herein is based on the concept that the subsidized lines are temporarily preserved by the fact that subsidized service exists.

DESCRIPTION OF BRANCH LINES WHICH ARE TO BE ACQUIRED FOR
RAIL BANKING PURPOSES

This section presents the Commonwealth's program of acquisition of rail rights-of-way for "rail banking," i.e., for future restoration of rail service or other transportation use.

Existing rail rights-of-way in a heavily developed state such as Massachusetts often represent precious assets which would be very difficult and expensive to reassemble or reproduce once dismembered. For instance, some pass through heavily industrialized areas where future development may require rail service. Others pass through areas which are in the earliest stages of transition from semi-agricultural to light industrial development where it is important that the potential for service not be threatened by loss of these transportation corridors.

Where rail passenger service becomes a viable and more attractive alternative to highway expansion, rights-of-way which can be used for passenger transport should be retained to save cost, time and the hardships of highway expansion.

For these reasons, and with the aid of the federal and state funding available for these purposes, the EOTC proposes to acquire the rights-of-way identified in this section of the Massachusetts State Rail Plan. (See Chapter VI, Table II.)

Line No. 6, Millbury to Millbury Junction

The Millbury Branch extends from Millbury Junction (Milepost 0.0) to the Town of Millbury (Milepost 2.7) in Worcester County, Massachusetts.

Prior to January 1975, the line was used to service two rail users: New England High Carbon Wire Company and the A. D. Windle Company.

In its data gathering, the Executive Office of Transportation and Construction learned that there are 28 acres of industrially zoned land with rail and highway access in Millbury. Millbury is a satellite city of Worcester, a principal metropolis of Massachusetts and a major interchange, destination and junction of rail traffic. The industrial acreage is a valuable asset for Millbury and this branch line.

The Commonwealth proposes to acquire the Millbury Branch to rail bank it for potential transportation use. The estimated acquisition cost, based on USRA-supplied data, is \$105,370.

Line No. 19, Westdale to East Bridgewater

The East Bridgewater Secondary Track extends from Westdale (Milepost 0.0) to East Bridgewater (Milepost 1.9) in Plymouth County, Massachusetts.

1. Community Description

This community is located south of Boston in an area which is experiencing a growth in population. Its economic base incorporates agricultural activity and light industry.

2. Physical Characteristics

- | | | | |
|----|------------------|---|------|
| a. | Length | 1.9 miles | |
| b. | Track | single | |
| c. | Railroad Bridge | Over the Matfield River (MP 1.11), fair condition | |
| d. | Grade Crossings | Route 106 | Fair |
| | | Spring Street | Poor |
| | | Union Street | Fair |
| | | Central Street | Poor |
| e. | Track Conditions | | |

This line would require upgrading to meet the requirements of the Federal Railroad Administration's Class I standards of a maximum operating speed of 10 mph. The USRA had estimated the cost of rehabilitation to FRA Class I to be \$25,000.

3. Present Rail Freight Usage

Prior to conveyance, this line had been serviced one day a week by train BX14 out of South Braintree employing a crew of four men.

4. Impact of Rail Service Discontinuance

The Board of Selectmen of the Town of East Bridgewater and its Industrial Development Commission have met with us to stress the importance this branch line has for industrial development in the town.

5. Line Disposition

The full line (1.9 miles) is proposed for acquisition by the Commonwealth to protect and preserve rights-of-way which offer the potential for use as transportation corridors, recreational areas or utility rights-of-way and to protect the option for rail-based industrial development. Based on USRA's estimate of the net salvage value of the line, the estimated acquisition price is \$83,033 or \$43,700 per mile.

Lines No. 29, Cedar to Wrentham, and No. 30, East Walpole to Cedar

Line No. 30 extends from East Walpole (Milepost 2.3) to Cedar Junction (Milepost 6.0) in Norfolk County, Massachusetts. Line No. 29 extends from Cedar Junction to Wrentham (Milepost 15.7) also in Norfolk County. Both are contiguous portions of the Wrentham Secondary Track.

1. Community Description

The communities located on these lines are Wrentham and Plainville which are not dependent on the lines for maintenance of the economic base. However, the lines have taken on more importance since the discovery of coal in southeastern Massachusetts and the resurgence of building construction in this section of the Commonwealth. The lines also offer potential for future commuter rail service.

2. Physical Characteristics of Line No. 29

- a. Length 9.7 miles
- b. Track single
- c. Railroad Seven over culverts and roads in fair to
 Bridges good condition.
- d. Grade Not available
 Crossings
- e. Track Condition (Not available)

The USRA had estimated the cost to upgrade this line to FRA Class I operating standards to be \$248,970.

3. Former Rail Freight Usage

Neither line receives service at the present time. Line No. 30 was used only as a bridge (for carrying traffic that did not originate or terminate on it) connecting to Line No. 29.

The former rail freight users on Line No. 29 were:

Wrentham Sand and Gravel
Masslite Concrete
Northeast Concrete Products
Simeone Stone Corporation

4. Line Disposition

This portion of the Wrentham Secondary Track does not receive freight rail service. However, because of the potential for use by the former users and to protect the right-of-way from dismemberment, the Commonwealth proposes to acquire both lines. Based on the USRA's estimated net salvage value, the estimated acquisition price of Line 29 is \$330,167 and that of Line 30 is \$133,861.

Since these lines are considered to be acquired for purposes of rail banking only, no rehabilitation is planned.

Line No. 54, Westfield to Southwick

This portion of the Holyoke Secondary track extends from Westfield (Milepost 31.7) to Stateline (Milepost 23.8), Massachusetts.

1. Community Description

This line formerly provided service to the Town of Southwick, located in southwestern Massachusetts, which is undergoing a transition from a tobacco farming economy to light industry. The table below illustrates the population.

<u>Town</u>	<u>1970 Census</u>	<u>1975 Estimate</u>
Southwick	6,330	7,220

2. Physical Characteristics

- a. Length 7.9 miles
- b. Track single
- c. Bridges Little River, Westfield
- d. Grade Seven public crossings, six of which are
Crossings protected by automatic gates.
- e. Track Conditions

The USRA had estimated the 1973 cost to upgrade this line to FRA Class I operating standards (a maximum of 10 mph) at \$129,610.

3. Former Rail Freight Usage

This line receives no service at the present time. The former rail users were:

Southwick Fred B. Arnold & Sons
 Can-Pak Corporation
 Gilbert S. Arnold Tobacco Co.
 Battistoni Lumber
 Robert F. Arnold Tobacco Co.
 Pioneer Dairy, Inc.
 Cul-Bro Tobacco Division, General Cigar Co.

4. Impact of Rail Service Discontinuance

- a. Economic Impact

The EOTC undercovered no direct job loss if rail service were discontinued.

- b. Highway Capacity

The Massachusetts Department of Public Works reports that Route 202, which parallels the rail line, is a two-lane undivided

highway with horizontal curves. Route 202 is currently used as a minor truck route.

5. Line Disposition

Because the Town of Southwick felt that rail service would make industrial development in the area more attractive and because the line is a north-south link through Connecticut to the Shore Route, i.e., a complete link for north-south traffic, the full line (7.9 miles) is proposed for acquisition by the Commonwealth. This acquisition will protect and preserve the right-of-way and offer the potential of use as transportation corridors, recreational areas, utility right-of-way and protect the option for rail-based industrial development. Based on USRA's estimate of the net salvage value of the line, the estimated acquisition price is \$302,684 or \$38,314 per mile.

C. Other State Programs Relating To Preservation Of
Rail Rights-Of-Way

Two programs (based on provisions of the Massachusetts General Laws) have been instituted to preserve rail rights-of-way and other rail property for eventual transportation use. It is the policy of the Executive Office of Transportation and Construction that all such properties should be preserved whenever there is any reasonable indication that they will be needed for future use. Where necessary, public acquisition of the property is used to carry out this policy.

These two programs are in addition to the major acquisition program under which an active effort is being made to acquire rights-of-way through negotiated sale.

The Chapter 161C, Section 7 program has been underway since early 1976. Under the statute, the Commonwealth has a 90-day right of first refusal on any sales by railroads of land, track or other rail facilities. The statute forbids sale to others at terms more favorable than those offered to the Commonwealth. The effect of Chapter 161C, Section 7 is that the Commonwealth has a final opportunity to purchase the property even though the property had not been the subject of negotiations between the Commonwealth and the railroad. While acquisition under this statute is less desirable than orderly negotiated purchase, it does prevent the permanent loss of the property.

Under the Chapter 161C, Section 7 program, offered property is immediately analyzed by the Executive Office of Transportation and Construction for possible value to the rail program. At the same time, various other state and local governmental agencies are notified of the availability of the property. If the property is desired for rail uses, appropriate funding is obtained, and the property is acquired. If no rail use is desired, but some other governmental use is indicated, the agency desiring the property is designated to exercise the rights of first refusal by dealing directly with the railroad. If no governmental use is indicated, the right of first refusal is declined and the railroad is free to sell the property.

The Chapter 40, Section 54a program concerns building permits on any property that was ever used for railroad purposes. Chapter 40, Section 54a is significant because it even applies to property that is no longer in railroad ownership. Under this statute, no person may obtain a building permit on the rail (or former rail) property unless the Massachusetts Secretary of Transportation grants permission after a public hearing.

When application for a building permit is made, the local permit-granting authority notifies the Secretary and requests appropriate permission. The Executive Office of Transportation and Construction analyzes the property and determines whether the proposed construction will in any way interfere with possible future rail use. At the same time, the Massachusetts Department of Public Works holds the required public hearing. Subsequently, a decision is made by the Secretary to grant or withhold permission for the issuance of the building permit.

D. Special Projects

Several projects, other than subsidized service, are underway or are planned using Title IV funding and anticipated Title VIII funding.

A. Rehabilitation

Rehabilitation of all subsidized lines to a minimum of 25 mph standards has been our objective to assure operating safety, dependability and efficiency. It is our opinion that Class II operating standards should be the minimum for track that will be used regularly over the long-term. Rehabilitation of the Falmouth and Hyannis lines to 40 mph standards is expected to begin in mid -summer due to a recent paperwork delay. Rehabilitation of the Ware River line is expected to be completed by late summer.

B. Restoration of Run-Around Tracks

Run-around tracks exist but are out of service at West Barnstable and North Falmouth. The West Barnstable run-around is necessary for efficient switching of industrial customers in the area. The North Falmouth run-around is necessary as an interchange with the U.S. Government switching service at Otis Air Force Base. Now that the run-around is not in service, it is necessary for ConRail to deliver the cars to the base itself, a round-trip distance of six miles via a very steep grade which often requires that more than one round trip be made. An average of 1½ hours can be saved each time the run-around at North Falmouth is used.

C. Siding and Transfer Track at Hyannis/Yarmouth

A major portion of the rail yards at Hyannis remained with the Penn Central Estate rather than being conveyed (as the Commonwealth requested) to the Commonwealth. The result is a very congested yard operation at Hyannis with little room for expansion. The principal user on Cape Cod uses the yard as a team track area and has problems with the congestion. Highway access to the yard is quite congested and the extensive switching operations repeatedly block the principal roadway thereby increasing the congestion.

Less than two miles north of Hyannis, a major new industrial park is located adjacent to the rail line and adjacent to an interchange of the Mid-Cape Highway which serves areas to the east no longer reached by rail. The principal user of rail freight service on Cape Cod is located in this park.

It is proposed to construct an industrial spur (probably less than one mile in length) into the industrial park with a team track, covered loading platform and bulk transfer facility. This will greatly simplify switching operations at Hyannis by diverting the traffic of the larger users. Ample opportunity will then exist for expansion of service to new customers. Problems of limited siding capacity at Hyannis will be eliminated. The effect on local road congestion will be most favorable.

Until the Independence Park project rail facility is constructed, a temporary transfer facility would allow an increase in present traffic being terminated in Hyannis by improving the transfer of goods from rail to truck. Upon completion of the rail structure, the transfer facility would be relocated at the new site.

D. Restoration of Wye at Buzzards Bay

The wye at Buzzards Bay was originally part of the ConRail system, but was returned to Penn Central. Exercising Chapter 161C, section 7, of the Massachusetts General Laws, the Executive Office of Transportation and Construction designated the Town of Bourne to acquire the property for the same price that had been offered to a private buyer. The Town has exercised the option and has agreed to sell the portion of the property necessary for rail purposes to the Commonwealth. The restoration of this wye (much of which is intact) would greatly simplify operations of trains on the Cape Cod subsidized lines. Under a proposal to designate a short-line operator (rather than ConRail) to provide the subsidized service, the wye becomes necessary.

It is proposed to acquire and rehabilitate this property with Title IV funds.

E. Restoration of Cape Cod Passenger Service

Governor Michael S. Dukakis has signed a \$5 million capital outlay budget which can be used for restoration of passenger service to Cape Cod from New York (via Attleboro) and from Boston. Stipulations in the budget for this project call for a detailed study of passenger and rehabilitation needs and options.

In conjunction with this project, the Governor has also signed a bill to enable the MBTA to buy and redevelop Boston's South Station to serve both bus and rail intercity and commuter passengers.

EOTC is responsible for the development of the Cape Cod passenger project. Actual service restoration in the New York - Cape Cod segment is dependent upon operating support from the federal government. Restoration of the Boston - Cape Cod segment will be a joint state/local decision as the operating costs associated with this project will in all likelihood be a joint responsibility.

F. Acton Industrial Sidetrack

Two principal users and occasional use by two other companies in the Acton area currently share a single sidetrack. This results in major problems because of the limited (and unexpandable) capacity of this track. For this reason, the subsidized service requires nearly twice as many trips than would be needed under ideal conditions.

EOTC is prepared to participate in construction of a second new side track this program year. Major funding will be provided by the business requiring the side track with the state portion to be refunded according to standard rail industry practices.

E. Rehabilitation Policy And Program

The six lines presently being subsidized in Massachusetts are all vital. Service is expected to continue indefinitely. Every effort is being made to make each of these lines viable. The commitment of Massachusetts is significant--three lines have already been purchased by the Commonwealth, and negotiations are underway for purchase of the other three. The seventh line will be subsidized cooperatively with the single industry located on it paying \$5,000 of the estimated deficit. The line is owned by the MBTA and maintained for commuter service. No rehabilitation is planned.

Accordingly, all decisions concerning rehabilitation consider the fact that the lines will be in service for the foreseeable future. In general, this fact justifies much more ambitious rehabilitation than in situations where the future of the line is in doubt.

In determining the level of rehabilitation to be achieved, three factors are considered:

1. Direct Program Benefits: Higher rehabilitation standards result in significant reductions in various subsidy costs. Higher operating speeds reduce time spent on the line thereby decreasing most transportation, crew and locomotive costs. The chances of violating the "hours of service" law are reduced thereby decreasing instances of very expensive recrewng. A program of maintenance can be instituted which is much more cost-effective than spot maintenance work done on an "as-needed" basis. In many cases, the designated operator can schedule more work for the train on its own system thereby decreasing the chances of the subsidizer bearing all costs of operating the train from the terminal to the subsidized line. In some cases, because of higher operating speeds, it is even possible to serve two or more subsidized lines in a single day with resultant dramatic reductions in subsidy costs. All of these savings must be considered where service is expected to continue indefinitely. The longest possible payback period is appropriate in analyzing these benefits.

2. Ability To Serve New Business: In general, service on subsidized lines has suffered from years of neglect. Large numbers of former rail using businesses have been driven to other modes. With reasonable service and a concentrated marketing effort, much of this lost traffic can be recaptured. In some cases, even a modest increase in traffic can make a major reduction in the subsidy cost. Yet, in several cases, slow operating speeds make it impossible to provide service to additional traffic thereby dooming the line to failure. Higher rehabilitation standards are, therefore, justified when they provide the potential to serve significant new traffic which could otherwise not be served.

3. Shipper Confidence: Potential new traffic on subsidized lines may develop in the form of new industry locating on the line, or industry which will either expand existing facilities or open new facilities. Conversely, present traffic can be lost if shippers elect to relocate away from the line rather than invest additional funds in an existing facility. In either case, the decision by the shipper involve long term commitments of funds in largely fixed facilities which are often dependent on rail service. Confidence by the shipper that rail service will continue is absolutely necessary and may be bolstered in several forms: public ownership of the right-of-way, long term commitments by the subsidizing authority, reasonable physical condition of the track itself. Few prudent businesspersons will invest in a rail-dependent facility located on a line that is merely held at 10 mph standards by a spot maintenance program. Shipper confidence is vital to the long-term viability of a subsidized line, and is extremely dependent on a reasonable rehabilitation program.

4. Other Benefits: The very existence of the rail service continuation program clearly indicates that direct financial benefit to the program, itself, is not the only criteria by which program spending should be justified. Obviously, if it were the only criteria the immediate cessation of the program would be appropriate because such cessation would reduce program costs to zero thereby maximizing direct financial benefits to the program. Accordingly, it is appropriate to consider benefits outside the program as justification for a rehabilitation project if these benefits can be expected to vary as a result of the project. Such benefits include:

- A. Energy savings
- B. Environmental benefits
- C. Creation of jobs
- D. Increases in income and sales taxes
- E. Decreases in welfare and unemployment costs
- F. Reductions in traffic congestion
- G. Public safety

All six branch lines have been analyzed to determine the most appropriate level of rehabilitation. The West Hanover Secondary track has been brought to FRA Class I (10 mph) operating standards.

On the Cape Cod lines, it turns out that major operational savings exist if the longest two lines (Falmouth and Hyannis) are upgraded to 40 mph standards and if the shortest line (South Dennis) is upgraded to 25 mph. At these speeds, all three lines can be operated (in addition to ConRail's non-subsidized work between Middleboro and Cape Cod) in one day. The present situation requires operation of either the Falmouth line or the Hyannis and South Dennis lines to remain within the time limits imposed by the hours-of-service law. The result is that the present level of service (once per week to Falmouth; twice per week to Hyannis/South Dennis) is possible with two weekly trains rather than the present three. At the new operating speeds, time on the subsidized lines will be reduced by more than 50%. Significant subsidy savings will result

because the present three-day a week service can be cut to two days. The corresponding reduction by ConRail of its services between Middleboro and Cape Cod will reduce the ever-increasing frequency of days when the subsidized operation absorbs all costs because no non-subsidized work is done. Maintenance costs will be less under a fixed program. Certain equipment costs would be reduced. Fuel (energy) requirements will decrease because of elimination of wasteful operation of the locomotive at low speeds. There will be a corresponding reduction in pollution. The capability to handle considerable new traffic will exist (presently this ability is quite limited). Shipper confidence will be maximized, and the Commonwealth's efforts to generate new traffic on these subsidized lines will be reinforced.

Quantifiable direct benefits to the program exceed 150% of the costs of this project on a discounted cost flow basis.

On the Ware River Valley line, rehabilitation to 25 mph standards of the entire line is nearly completed. Restoration of the line to any level below 25 mph standards would have resulted in continued frequent violation of the hours-of-service law even when the designated operator (ConRail) did no non-subsidized work. At 25 mph standards, adequate capacity will exist for the existing traffic, the known demand on the presently "out-of-service" portion of the line and for additional traffic as it is generated by the Commonwealth's marketing effort. Equally important, there will be time for ConRail to perform non-subsidized work between the terminal at Springfield and the beginning of the subsidized line at Palmer, a factor which eliminates the major cost of subsidizing the train all the way from the terminal.

Quantifiable direct benefits to the program total far in excess of the costs of attaining 25 mph standards.

The resulting shipper confidence is all-important. Existing shippers face major plant investment decisions in the next few years. The firm commitment of the 25 mph track rehabilitation supports decisions in favor of investment. The effect should be increased traffic on a rail line that needs more traffic and more jobs in an area characterized by high unemployment.

F. Program Operations

Proper functioning of subsidized rail services and other aspects of the Title VIII program require a new day-to-day effort known as program operations. Elements of this effort include the following:

Accounting-- All federal grants, state funds and third party funds plus all "in-kind" benefits must be correlated with the appropriate lease, subsidy, maintenance, rehabilitation, purchase, personnel, consultant and fringe costs.

Car Supply-- Insuring that the designated operator of subsidized rail service provides adequate empty cars to shippers has proven to be a task requiring an on-going effort between the operator and the subsidizer. Major improvements are being made to a previously inadequate situation.

Contracting-- All construction work, rehabilitation and other work must be contracted with various construction firms. Standard state contracting procedures are modified when necessary to conform with the special requirements of a rail program. Care is taken to conform with applicable federal requirements including affirmative action procedures.

Data Collection-- Records from the operators of subsidized service and shippers must be gathered and monitored.

Grant Administration-- Various administrative functions are necessary to properly control the program and to satisfy requirements imposed by the Federal Railroad Administration.

Marketing-- Typically, subsidized rail lines have suffered years of maintenance, service and marketing neglect. With improvement of the physical plant and service, we have begun a marketing effort to return lost traffic to the line. Numerous contacts with shippers and potential shippers (plus help from the marketing departments of railroads that connect with the designated operator) are beginning to result in new business.

Negotiations-- Extensive negotiations take place with the designated operator regarding subsidy contracts and with the owner of the rail line regarding lease provisions.

Operations Monitoring-- All operations of subsidized service must be monitored frequently to insure sufficient quality of service without unreasonable costs.

Supervision of Projects-- On-site supervision is required for major projects.

Trouble Shooting-- Day-to-day problems occur in subsidized operations which are not handled by the local management of the designated operator unless the staff of the Executive Office of Transportation intervenes.

G. Marketing the Subsidized Lines

EOTC has undertaken a marketing effort guided by a two-part philosophy. The first is to increase contribution the subsidized lines make to the rail system in the Commonwealth. The second part is to increase the value railroad transportation service contributes to local industries.

The marketing efforts have involved a three-phase approach. The first effort concentrates on the current users of the railroad; the second phase involves identifying users of transportation services that are currently utilizing railroad service; and the third is to develop new markets.

1. Current Users

Traffic routing can have a significant impact on the operational economics of the LDL. Our marketing efforts have been directed to optimize revenues attributable to an LDL. In general, the following maxims apply:

1. For any traffic handled, the heavier carload is preferable.

Reason: The reimbursement to ConRail depends more on the fact that a carload is moved and less on the fact of its weight. However, revenues depend more on the weight than anything else. Thus, as the carload weight increases the attributable revenue increases much more quickly (often 2-4 times) than expenses.

2. For traffic originated or terminated on another railroad, maximizing the miles traveled on ConRail is preferable (called "long-hauling" ConRail).

Reason: Again, revenues often increase more than expenses.

3. Traffic originated on ConRail is preferable to carloads originated on another railroad.

Reason: Revenues increase much more than expenses.

By applying these maxims, traffic movements are optimized to reduce the operating deficit. Because ConRail is compensated through the reimbursement schedule, ConRail is no worse or better off. And because a user of a LDL pays the same rate, the user is also no better or worse off. However, the operational economics can significantly improve.

In our marketing efforts, EOTC analyzes repetitive carload movements to find out what the optimal movement is. For instance, a very light car can generate so little revenue that costs are not covered. EOTC may then determine that the shortest movement on ConRail is the best because it minimizes loss.

As a result of carload analyses, EOTC questions the widely held belief that more carloads are better. Specifically, many lightly loaded cars are unprofitable to move (attributable revenues are less than the cost to move them). Thus EOTC is encouraging the rail users to receive or ship heavier cars, and to consider combining cars whenever possible. A solution for most traffic is as simple as increasing car size from the typical 40' car length to newer cars that are 50' or even 60' long. In general, the revenues increase much more than do expenses thereby making the traffic profitable for the LDL. Thus, while EOTC is encouraging more traffic, it is encouraging a more profitable traffic mix and not blindly encouraging carloads for the sake of increased numbers. This will result in fewer carloads being moved, but not a reduction in the tonnage moved.

For example, one consignee received about 120 carloads last year, usually 40' cars. If this same traffic is put into 50' cars, the traffic would move in 100 cars. Instead of each 40' carload generating a small loss, each 50' carload can contribute as much as \$100. This means about a \$10,000 improvement in the LDL economics from this single change.

The preceeding is not meant to be a definitive explanation of the economics of the LDL and its relationship to traffic movements, but to convey an idea of efforts to improve the financial operation of our lines by determining optimal movements. EOTC must then "market" these ideas to the users of the line. Only through close coordinated efforts between the users and EOTC can the benefits of optimal movement be achieved.¹

The second part of the marketing efforts for current users involves increasing their utilization of rail. Review of the traffic patterns of many of the railroad users indicates that each utilizes rail and truck movements based on the relative service and cost characteristics of railroad versus truck delivery. By understanding these differences, and then trying to improve the relative advantage of rail, the movements employing trucks will then have a chance to move by rail.

¹The value in optimizing movements varies with each particular movement. The typical range is from \$20-\$80 per carload improvement in its contribution to the LDL. While it is hardly worthwhile to worry about this contribution on the occasional movement, it is important where repetitive movements of 50-100 carloads are involved. Based on about 2000 carloads handled on all the LDL's and say about \$30 per carload, these efforts could reduce LDL costs about \$60,000 per annum.

The lines on Cape Cod have been the trial ground for this marketing effort. With the base of about 1,000 carloads on Lines 21/22, about 125 more carloads are possible because the rates are better than truck but the service is poorer. Overcoming the service constraint and working with the current railroad users to optimize traffic movements for greater revenue is the final step in this aspect of making subsidized lines self-sufficient.

2. New Railroad Users

EOTC is working on a marketing effort aimed at tapping additional traffic for the railroad lines where the following conditions are met: (1) significant tonnages; (2) easily identifiable market; and, (3) where the economics are in favor of rail movements (either current rates or competitive rates could be introduced).

Because of limited staff resources, EOTC must approach this marketing very selectively. EOTC is giving first priority to those movements where railroads other than ConRail can participate. There are two reasons for this. ConRail has no economic incentive to solicit traffic for the LDL. Often a conflict of interest situation will develop because a new user of rail could use either ConRail or the LDL; experience has already shown that ConRail solicits traffic away from the LDL. The second reason is that the other railroads have their own economic interest in developing new traffic and hence are motivated in helping EOTC increase carloadings on the LDL. Working with other railroads leverages EOTC's limited staff resources.

The soliciting of new traffic is still in its formative stages. However, additional traffic already seems possible. For example, there seems to be about 125 carloads of construction commodities that could terminate on the Cape Line 21/22. But more traffic than this is necessary and only in the long term, as new markets are developed, will the individual LDL achieve full self-sufficiency.

3. Developing New Markets

A close liaison between EOTC and other agencies of the Commonwealth acts to provide information about changes in the economic character of the regions served by our subsidized lines. The Commonwealth has made a long-term commitment to railroad transportation and will continue its efforts to develop this mode as a permanent asset.

4. Marketing Accomplishments

The analysis of traffic movements to date has achieved some important results, particularly on Line 21. Existing traffic movements could be made more profitable if the weight load limit on a car could be increased from 220,000# to the industry norm of 263,000#. When EOTC inquired to ConRail about increasing the weight load limit, ConRail discovered that the New Haven Railroad in 1968 had increased

the load limit, but the records were never changed. Thus, with a stroke of a pen in August 1977, cars of 263,000# gross weight were allowed to move to Hyannis for the first time. This has benefited sand and plastic movements. A second accomplishment was to identify a major traffic movement that cost \$20,000 more than revenues in 1976. By re-routing the traffic, costs were decreased about \$50 per car for a \$12,000 savings. Only by requesting a surcharge on the traffic to which the rail user concurred, was the remaining loss of \$8,000 eliminated. These two accomplishments are expected to improve the operating results of the Hyannis line by about \$25,000 per year.

Limited analysis of traffic movements on the other subsidized lines has yielded benefits. Only one carload in fifteen of a major movement of lumber on Line 13 was found to be profitable. Working with the railroad user, the typical tonnage per car was increased about 10,000# thereby making the traffic contribute a small, but consistent profit to the line. Analysis of traffic on Line #17 uncovered unprofitable traffic segments. Working with the railroad users, increased carload weights have decreased losses and made some traffic contribute quite significantly to the viability of the line. We are now working with another major rail user on this line on similar corrective action. While we have been able to concentrate our traffic analysis only a few major traffic movements, the results to date have been encouraging and have helped reduce operating losses. Our successes, thus far, suggest that efforts of this kind should produce similar results in other states attempting to preserve the integrity of freight rail services.

CHAPTER VI

TABLE I: OPERATING SUBSIDY PROGRAM (in descending order of priority)

Line	End Points	Miles	Shippers	1977-78 Annual Carloads	Direct ¹ Job Loss	Estimated Annual ² Subsidy (1978 dollars)		Proposed Trips per year	
						Operations	Lease		
						Total			
I. To be continued with Massachusetts funding non-federal share of subsidy.									
17	N. Abington-W. Hanover	3.6	7	534	148	\$112,007	\$15,022	\$127,029	104
21	E. Sandwich-Hyannis	16.8	9 } 4 }	1009	152	\$151,449	\$93,472	\$244,921	104
22	Yarmouth-S. Dennis	5.6			145				
8	Palmer-S. Barre	25.0	5	225	87	\$81,531	\$97,643	\$179,174	104/52
23	Buzzards Bay-Falmouth	13.5	5	276	9	\$30,061	\$54,247	\$84,308	52
13	S. Sudbury-Chelmsford	20.5	9	321	5	\$122,125	\$88,879	\$211,005	104
33	Forest Hills-Needham Jt. ³	2.9	1	100 ⁴	200	\$26,462	\$12,101	\$38,563	52
Total		87.9	40	2,465	746	\$523,636	\$361,364	\$885,000	
Six Months Planning						12,429		\$897,429	

FOOTNOTES:

¹ Based on shipper-supplied information. An additional 1.5 times as many jobs would be lost indirectly.

² Based on subsidy contract with ConRail and 15% contingency plus estimated right-of-way lease.

³ Only 2.9 miles of the 6.8 miles of the branch is to be operated

⁴ Projected

CHAPTER VI

TABLE II: PROPOSED ACQUISITION AND REHABILITATION PROGRAM OF SUBSIDIZED BRANCHLINES

(in descending order of priority)

Line	End Points	Miles	Proposed Acquisition ²		Proposed Rehabilitation	
			Priority	Est. Cost	Miles	Description Est. Cost
<u>I. To be acquired and rehabilitated for continued operation</u>						
21	E. Sandwich-Hyannis	16.8	}	\$307,655	16.8	FRA III } \$1,152,158
22	Yarmouth-S. Dennis	5.6			5.6	FRA II }
23	Buzzards Bay-Falmouth	13.5			13.5	FRA III } \$750,250
13	S. Sudbury-Chelmsford	20.5	B1	\$769,380	20.5	FRA II } \$1,039,283
17	N. Abington-W. Hanover	3.6	B2	\$154,505	3.6	FRA I } \$168,893*
8	Palmer-S. Barre	25.0	B3	\$914,622	25.0	FRA II } \$1,444,557
33	Forest Hills-Needham Jt.	(Owned by MBTA; no rehabilitation required.)				
Subtotal		87.9		\$2,146,162	87.9	\$4,386,248

FOOTNOTES:

- 1 Priorities: A. Protected from loss through rail banking; B. Protected from immediate loss through continued freight service.
- 2 Based on USRA Final System Plan, modified by EOTC where appropriate (see text).
- 3 Based on EOTC engineering analyses.
- * Not included in total, completed in December 1977

EOTC: 7/27/78

CHAPTER VI

TABLE II: PROPOSED ACQUISITION PROGRAM (in descending order of priority)

USRA Line # and End Points	Mileage	Priority	Estimated Acquisition Cost
<u>To Be Rail Banked</u>			
#29 Wrentham to Cedar	9.7	A-1	\$330,167
#30 Cedar to East Walpole	3.7	A-2	\$133,861
#54 Southwick to CT Border	7.9	A-3	\$302,684
#6 Millbury to Millbury Jct.	2.7	A-4	\$105,370
#19 Westdale to E. Bridgewater	1.9	A-5	\$83,033
#23 Wye at Buzzards Bay	0.5		\$20,000
Weir Junction to Dighton (including industrial spur)	7.0		\$70,000
Medfield to Millis	1.0		\$15,000
Middleboro to Campello	13.0	}	\$1,000,000
Attleboro to Middleboro	13.3		
Middleboro to Buzzards Bay***	20.4		
Buzzards Bay to E. Sandwich***	7.5		
Subtotal	88.6		\$2,060,115

*** Currently operated by ConRail but under study for possible abandonment by the Operator.

VII. OVERALL PLANNING PROCESS FOR ALL TRANSPORTATION IN
THE COMMONWEALTH

The overall transportation planning process in the Commonwealth is the responsibility of the Executive Office of Transportation and Construction. The planning process is delegated to the Massachusetts Department of Public Works which further delegates the planning of specific system modes to the Bureau of Transportation Planning and Development.

The BTP&D guides and coordinates planning activities through comprehensive regional and corridor planning studies, basic analysis zones for multi-modal uses, land use inventories and regional mapping programs. All BTP&D planning activities include local and regional participation.

A complete explanation of the planning process is found in the 1975 Transportation Planning Status Report prepared for the BTP&D under a grant from the FHWA, U.S. DOT. Copies are available by contacting the Bureau of Transportation Planning and Development directly at 150 Causeway Street, Boston, Massachusetts, 02114.

Glossary of Common Rail Terms

Track

FRA Safety Standards: The FRA has promulgated and enforces a set of railroad track standards; the purpose of which is to set minimum levels of geometric measurements which, if met, permit specific maximum passenger and freight train speeds. Using the standards, track is placed into one of the following classes:

<u>Class</u>	<u>Freight</u>	Maximum Speed (MPH)	<u>Passenger</u>
I	10		15
II	25		40
III	40		60

Ties:

The wooden timbers which set under the rail. Normally ties measure 6" X 8" X 8' to 8½' and are creosote treated. Typical tie life is 35 to 40 years. The purpose of the tie is to hold the rail in guage and to distribute the load to the ballast.

Rail:

The steel beam which bears the initial load of the rail vehicle. It is categorized by its weight (in pounds) per yard of length. Typical rail sizes are 85#, 90#, 100#, 112#, 115#, 132#.

Tie Plates:

The steel or rubber pad placed between the rail and tie to better distribute the transmission of the load from rail to tie.

Rail Anchor:

A device fitted to the rail abutting a tie which prevents the lateral movement of the rail or skewing of the tie.

Joint Bar:

The device which joins together two abutting rail ends. The bar is normally secured by four to six joint bolts.

Turnout:

The track system which permits rail vehicles to go from one track to another, often called a "switch".

Switch Points:

That part of a turnout which directs the movement of the rail vehicle.

Switch Frog:

That part of a turnout where the rail vehicle wheel flange passes through a diverging rail.

Passing Track:

A system of tracks which permits one train to pass another usually characterized as a track adjacent to the main line which has a turnout at both ends.

Run-Around Track:

Same as a passing track except usually shorter and in a yard or switching area.

Siding:

A spur off the main track usually for the purpose of serving a customer.

Team Track:

A siding owned by the railroad designated for the placement of cars for customers who do not own their own track. Normally, a customer will use such a track in conjunction with a motor truck.

Public Delivery Track:

Same as team track.

Yard:

An area used by a railroad to assemble cars into trains and to switch out cars for delivery to customers.

Source: Fay Associates, Boston, MA

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